# **LBT-N455**

## **SERVICE MANUAL**

• LBT-N455 is composed of following models.

As for the service manual, it is issued for each component model, then, please refer to it.

AEP Model UK Model E Model AUS Model PX Model

#### **COMPONENTS MODEL NAME FOR LBT-N455**

COMPACT DISC DECK RECEIVER SYSTEM	HCD-N455
SPEAKER SYSTEM	SS-LB455

#### **SPECIFICATIONS**

#### General

Power requirements

AEP, UK, German, Italian, East European models:

220-230 V AC, 50/60Hz

Australian model:

240V AC, 50/60Hz

Mexican model:

120V AC. 60Hz

Other models:

110-120V or 220-240V AC

adjustable, 50/60Hz

Power consumption

AEP, UK, German, Italian, East European models:

175W

Other models: 185W

#### Supplied accessories

AM loop aerial (1)

Remote RM-SD50 (1)

Sony SUM-3 (NS) batteries (2)

FM wire aerial (1)

Flat cord (1)

Audio cords (4)

Speaker cords (2)

Design and specifications are subject to change without notice.

# COMPACT Hi-Fi STEREO SYSTEM SONY

#### PARTS LIST

#### NOTE:

 Items marked " \*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

8-917-537-90 REMOTE COMMANDER (RM-SD50)

#### Abbreviations

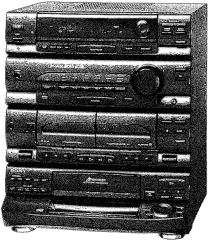
G : German model
IT : Italian model
EE : East European model
MX : Mexican model
AUS : Australian model
AR : Argentine model

#### Part No. Description Remark **ACCESSORIES & PACKING MATERIALS** 1-501-374-11 ANTENNA, LOOP (INDONESIA PRODUCT) 1-501-659-41 ANTENNA (FM) (E, MX, AR, AUS, PX) 1-501-721-21 ANTENNA (LOOP) (MALAYSIA PRODUCT) (AEP) 1-501-804-11 ANTENNA (FM) (AEP, UK, IT, EE) 1-769-317-11 CORD, SPEAKER (RED/BLACK) (SS) (2.5m) 1-775-458-11 CORD, SPEAKER (BLUE/BLACK) (SS) (2.5m) 3-810-802-11 MANUAL, INSTRUCTION (ENGLISH) (UK) 3-810-802-21 MANUAL, INSTRUCTION (INDONESIA PRODUCT) (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP) 3-810-802-31 MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP, IT) 3-810-802-51 MANUAL, INSTRUCTION (GERMAN) (G) 3-810-802-61 MANUAL, INSTRUCTION (ENGLISH, POLISH, RUSSIAN) (EE) 3-810-803-11 MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, CHINESE) (E, AR, AUS, PX) 3-810-803-21 MANUAL, INSTRUCTION (SPANISH) (MX) 3-810-803-51 MANUAL, INSTRUCTION (MALAYSIA PRODUCT) (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP) 4-979-306-01 INDIVIDUAL CARTON (HCD) (AUS, PX) 4-979-307-01 INDIVIDUAL CARTON (HCD) (E, MX, AR) 4-979-309-01 INDIVIDUAL CARTON (HCD) (INDONESIA PRODUCT) (AEP, UK, G, IT, EE) 4-979-371-01 COVER, BATTERY (for RM-SD50) 4-979-431-01 CUSHION (BOTTOM) (HCD) (INDONESIA PRODUCT) 4-979-431-11 CUSHION (BOTTOM) (HCD) (MALAYSIA PRODUCT) (AEP) \* 4-980-140-01 CUSHION (UPPER) (HCD) (INDONESIA PRODUCT) 4-980-140-11 CUSHION (UPPER) (HCD) (MALAYSIA PRODUCT) (AEP) 4-980-310-01 INDIVIDUAL CARTON (SS) (AUS, PX) 4-980-311-01 INDIVIDUAL CARTON (SS) (E, MX, AR) 4-980-312-01 INDIVIDUAL CARTON (SS) (INDONESIA PRODUCT) (AEP, UK, G, IT, EE) 4-980-685-01 CUSHION (SS) 4-981-899-01 INDIVIDUAL CARTON (HCD) (MALAYSIA PRODUCT) (AEP) 4-983-126-01 INDIVIDUAL CARTON (SS) (MALAYSIA PRODUCT) (AEP)

-2-

## **HCD-N455**

## **SERVICE MANUAL**



AEP Model **UK Model** E Model Australian Model PX Model

HCD-N455 is the tuner, deck, CD and amplifier section in LBT-N455.

Photo: E model

CD SECTION	Model Name Using Similar Mechanism	HCD-D270/G3100/N255	
	CD Mechanism Type	CDM37-5BD19	
	Base Unit Type	BU-5BD19	
	Optical Pick-up Type	KSS-213BA/S-N	
TAPE DECK SECTION	Model Name Using Similar Mechanism	HCD-N350	
	Tape Transport Mechanism Type	TCM-220 WR2E	

#### **SPECIFICATIONS**

CD	p	laver	sect	ion

System Compact disc and

digital audio system

Semiconductor laser Laser

> $(\lambda = 780 \text{ nm})$ Emission duration:

continuous

Max 44.6 µW\* laser output

\* This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block

with 7 mm aperture.

780 - 790 nm Wavelength

#### **Tuner section**

FM stereo, FM/AM superheterodyne tuner

#### FM tuner section

87.5 - 108.0 MHz

(50 kHz step)

Aerial Aerial terminals

FM wire aerial 75 ohm unbalanced

Intermediate frequency

10.7 MHz

#### AM tuner section

Tuning range

German and Italian models:

AM: 531-1, 602 kHz

AEP, UK, East European models:

531-1, 602 kHz MW: 153-279 kHz

(with the tuning

interval set at 3 kHz)

Other models:

Aerial

531 – 1,602 kHz

(with the AM tuning interval set at 9 kHz) 530 - 1,710 kHz (with the AM tuning interval set at 10 kHz)

AM loop aerial

External aerial terminals

Intermediate frequency

450 kHz

- Continued on next page -





#### Tape player section

Recording system

4-track 2-channel stereo

Frequency response

(DOLBY NR OFF)

40 - 13,000 Hz (±3 dB), using

SONY TYPE I cassette

40 - 14,000 Hz (±3 dB), using

SONY TYPE II cassette

Wow and flutter

±0.15% W.Peak (IEC)

0.1% W.RMS (NAB)

±0.2% W.Peak (DIN)

#### **Amplifier section**

AEP, UK, German, Italian, East European

Peak music power output:

 $(40 \text{ W} + 40 \text{ W}) \times 2 (6 \Omega \text{ at } 1 \text{ kHz})$ 

0.7% DIN)

Continuous RDS power output:

 $(50 \text{ W} + 50 \text{ W}) \times 2 (6 \Omega \text{ at } 1 \text{ kHz})$ 

10% THD)

Music power output:

 $(80 \text{ W} + 80 \text{ W}) \times 2 (6 \Omega \text{ at } 1 \text{ kHz},$ 

10% THD)

Other models:

Peak music power output:

1,200 W (6  $\Omega$  at 1 kHz, 10%

THD)

Continuous RMS power output:

 $(40 \text{ W} + 40 \text{ W}) \times 2 (6 \Omega \text{ at } 1$ 

kHz, 10% THD)

Inputs

PHONO (phono jack):

Sensitivity 3 mV, impedance

47 kilohms

VIDEO (AUDIO) (phono jack):

Sensitivity 250 mV, impedance

47 kilohms

MIC (phone jack): (E, Australian, Mexican, PX,

Aregentine model)

Sensitivity 1 mV, impedance

10 kilohms

Outputs

PHONES (phone jack):

accept headphones of 8 ohms or more

(FRONT ) SPEAKER: accept impedance of

6 to 16 ohms

SURROUND SPEAKER:

AEP, UK, German, Italian, East European,

Mexican models:

accept impedance of 16 ohms

Other models:

accept impedance of 8 to

16 ohms

SUPER WOOFER:

AEP, UK, German, Italian, East European

models: accept impedance of 16 ohms

Other models:

accept impedance of 6 to

16 ohms

#### General

Power requirements

AEP, UK, German, Italian, East European models:

220-230 V AC, 50/60 Hz

Australian model:

240 V AC, 50/60 Hz

Mexican model:

120 V AC, 60 Hz

Other models:

110 - 120 V or 220 - 240 V AC

adjustable, 50/60 Hz

Power consumption

AEP, UK, German, Italian, East European

models: 175 W Other models: 180 W

Dimensions

Approx.  $355 \times 425 \times 400 \text{ mm}$ 

 $(14 \times 16^{3}/_{4} \times 15^{3}/_{4} \text{ inches}) (w/h/d)$ 

incl. projecting parts and controls

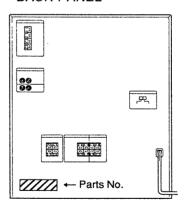
Mass

Approx. 11.8 kg (26 lb)

\* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol DD are trademarks of Dolby Laboratories Licensing Corporation.

Design and specifications subject to change without notice.

## MODEL IDENTIFICATION — BACK PANEL —



MODEL	PARTS No.
N455 : AEP model	4-978-191-2□
N455 : German model	4-978-191-3□
N455 : Italian model	4-978-191-4□
N455 : UK model	4-978-191-5□
N455 : East European model	4-978-191-7□
N455 : E model	4-978-192-0□
N455 : Argentine model	4-978-192-1□
N455 : Australian model	4-978-192-2□
N455 : PX model	4-978-192-3□
N455 : Mexican model	4-978-192-4□

#### CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

#### Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

#### Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

CLASS 1 LASER PRODUCT LUOKAN 1 LASERLAITE KLASS 1 LASERAPPARAT This appliance is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

CAUTION: INVISIBLE LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO BEAM.

ADVARSEL: USYNLIG LASERSTRALING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDS ÆTTELSE FOR STRÅLING.

VARO!: AVATTAESSA JA SUOJALUKITUS OHITETTAESSA DLET ALTTIINA LASERSÄTEILYLLE.

VARNING: LASERSTRÅLING NÅR DENNA DEL ÄR OPPNÅD OCH SPÄRREN AR U RIXOPPLÅD.

ADVERSEL: USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES UNNGÅ EKSPONERING FOR STRÅLEN.

This caution label is located inside the unit.

#### **SAFETY-RELATED COMPONENT WARNING!!**

COMPONENTS IDENTIFIED BY MARK  $\triangle$  OR DOTTED LINE WITH MARK  $\triangle$  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

#### **SERVICING NOTE**

### NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

#### NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

#### [FL Dispaly Tube, LED All Lit and Key Check mode]

When the TUNER/BAND, DISPLAY/DEMO, and FILE 2 buttons are pressed simultaneously, the FL display tube and LEDs will all light up. Press any button to enter the key check mode.

When the key check mode is entered, the FL display tube displays "K1 J0 V0". Each time a button is pressed, the counter increases in the following order,  $K 2 \rightarrow K 3 \rightarrow K 4$ .

If buttons already pressed once are pressed again, the counter will not increase. When the VOLUME knob is rotated in the + direction, the count increases in the following order.

 $V1 \rightarrow V2 \rightarrow V3$ .

When rotated in the – direction, it decreases in the following order.

 $V0 \rightarrow V9 \rightarrow V8$ .

When the AMS dial is rotated in the clockwise direction, the count increases in the following order.

 $J1 \rightarrow J2 \rightarrow J3$ .

When rotated in the counterclockwise direction, it decreases in the following order.

 $J0 \rightarrow J9 \rightarrow J8$ .

To exit form the test mode, press the TUNER/BAND, DISPLAY/DEMO, FILE 2 buttons simultaneously again.

#### [Switching the channel step 9 KHz/10 KHz]

Press ENTER/NEXT button and POWER button simultaneously to switch the AM channel step 9 KHz and 10 KHz. Be sure not to change with carelessness.

#### TABLE OF CONTENTS

Sect	<u>ion</u> <u>litle</u>	<u>Page</u>	Sect	<u>lion</u>	<u>litle</u>	Page
SEC	TION 1. GENERAL	5			c Diagram — CD Panel Section —	
					/iring Board — CD Panel Section —	
	TION 2. DISASSEMBLY				/iring Board — Main Section —	
	Front Panel ASSY and Main Board		5-14.	Schemati	c Diagram — Main Section —	51
	TC Mechanism Deck				c Diagram — Deck Section —	
2-3.	CD Mechanism Deck				/iring Board — Deck Section —	
2-4.	BU Bracket ASSY		5-17.	Printed V	Viring Board — Power Section —	62
2-5.	Disc Table	9			c Diagram — Power Section —	
			5-19.	Schemat	c Diagram — Panel Section —	69
	TION 3. MECHANICAL ADJUSTME	•		Printed VIC Pin Fu	Viring Board — Panel Section — unctions	73
	TION 4. ELECTRICAL ADJUSTME			• IC501 (	Graphic Control (ASD0204-012-3BA)	77
	Section			• IC701 N	Master Control (TMP87CS64YF)	78
	R Section		5-22.	IC Block	Diagrams — CD Section —	81
CD S	ection	14				
			SEC	TION 6.	EXPLODED VIEWS	
SEC	TION 5. DIAGRAMS		6-1.	Case and	Back Panel Section	83
5-1.	Circuit Boards Location	16	6-2.	Panel Bo	ard Section	84
5-2.	Block Diagrams		6-3.	Front Pa	nel Section	85
	Tuner Section		6-4.	Chassis	Section	86
	(E, AUS, MX, PX, AR Models)	17	6-5.	TC Mech	anism Section 1 (TCM-220 WR2E)	87
	• Tuner Section (AEP, UK, G, IT, EE I	Models) 19	6-6.		anism Section 2 (TCM-220 WR2E)	
	Deck Section	21	6-7.		anism Section 3 (TCM-220 WR2E)	
	CD Section	23	6-8.		nanism Section (CDM37-5BD19)	
	Main Section				it Section (BU-5BD19)	
5-3.	Printed Wiring Board — CD Section -	27			,	
5-4.	Schematic Diagram — CD Section —		SEC	TION 7.	ELECTRICAL PARTS LIST	92
5-5.	Schematic Diagram — CD Motor Sect	ion — 32				
5-6.	Printed Wiring Board — CD Motor Sec					
5-7.	Schematic Diagram — Tuner Section					
	(E, AUS, MX, PX, AR Models)					
5-8.	Printed Wiring Board — Tuner Section					
	(E, AUS, MX, PX, AR Models)		. Δ	bbreviation		
5-9.	Schematic Diagram — Tuner Section		G		nan model.	
	(AEP, UK, G, IT, EE Models)		ΙΤ	: Italia	n model.	
5-10.	Printed Wiring Board — Tuner Section		E	E : East	European model.	
-	(AEP, UK, G, IT, EE Models)	42	M	X : Mexi	can model.	
	,				ralian model.	
			Α	R : Arge	ntine model.	

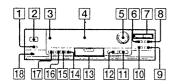
#### SECTION 1 **GENERAL**

This section is extracted from instruction manual.

#### **Front Panel**

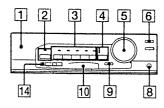
#### **Tuner section**

Refer to the pages indicated in parentheses for details on how to use the controls.



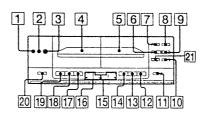
- 1 SLEEP button (24) 2 SYSTEM POWER switch (7)
- 3 Remote sensor
  4 Display window (30)
- 5 CURSOR CONTROL buttons (6, 22)
- 6 TUNING MODE button (12)
- 7 TUNING +/- buttons (12)
  8 TUNER MEMORY button (13)
- 9 STEREO/MONO button (12)
- TO PTY button (13) (AEP, UK, G, IT, EE models)
- III ENTER/NEXT button/indicator (6, 9,
- 12 DISPLAY/DEMO button (7, 13, 22)
- 13 TUNER/BAND button/indicator (12, 19, 25)
- 14 REC button (25)
- 15 DAILY 2 button (24)
- 16 DAILY 1 button (24)
- 17 TIMER SET button (24, 25) 18 CLOCK SET button (6)

#### **Amplifier section**



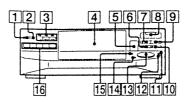
- 1 PHONES jack (20)
- 2 EFFECT button/indicator (20)
  3 FILE 1 5 buttons/indicators (20, 21)
- 4 FILE SELECT button/indicators (20, 21)
- 5 VOLUME control (7, 20) 6 DBFB button (20)
- 8 SUPER WOOFER button
- 9 MEMORY button (22)
- 10 FUNCTION button (7, 14)
- 14 KARAOKE PON/MPX button (25) (E, AUS, PX, MX, AR model)

#### Tape player section



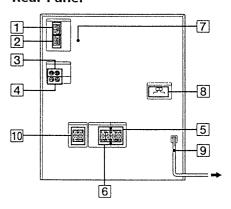
- 1 MIC jack (25) (E, AUS, PX, MX, AR models)
- 3 MIC LEVEL control (25)
- 4 Cassette compartment for DECK A (14)
- Cassette compartment for DECK B (14)
- 6 II (pause) button (14)
- 7 HIGH SPEED DUBBING button (19)
- 8 CD SYNCHRO button (15)
- 9 REC (recording) button (15)
- 10 DIRECTION button (15)
- 12 ▷ (fast rightward) button for DECK B
- 13 << (fast leftward) button for DECK B (14)
- 14 STOP button for DECK B (14)
- √ (play) button for DECK B (14)
- √ (play) button for DECK A (14)
- 17 >> (fast rightward) button for DECK A (14)
- 18 < (fast leftward) button for DECK A (14)
- 19 STOP button for DECK A (14)
- 20 △ EJECT button for DECK A (14)
- 21 DOLBY NR button (AEP, UK, G, IT, EE models)

#### **CD** player section

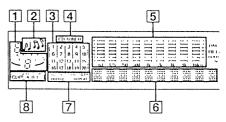


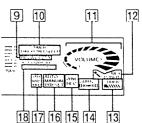
- 1 MUSIC CLIP PLAY button (11)
- 2 MUSIC CLIP ERASE button (11)
  3 CLIP A, B, C buttons/indicators (10)
- 4 Front cover (7)
- 6 DISC SKIP button (7)
- 7 II (pause) button (7)
- 9 □ (stop) button (7)
- 10 AUTO button/indicator (7)
- 11 PROGRAM button (9)
- 12 REPEAT button (9) 13 JOC dial (7)
- 14 SHUFFLE buttons (8)
- [15] CONTINUE button (7)
- 16 DISC 1 5 buttons (7)

#### Rear Panel



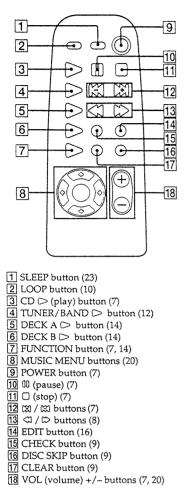
- 1 AM terminal (4)
- $\boxed{2}$  FM 75 $\Omega$  terminal (4)
- [3] PHONO IN jacks (26)
- 4 VIDEO (AUDIO) IN jacks (26)
- FRONT SPEAKER connectors (5)
- 6 SURROUND SPEAKER connectors (5)
- 7 h ground terminal (5)
- B VOLTAGE SELECTOR (except for Malaysian, Mexican and Australian models) (6)
- 9 AC power cord (6)
- 10 SUPER WOOFER connectors (5)





- 1 Disc calendar (7)
- 2 Demo mode indications (6)
- 3 Music calendar (7)
- 4 CD/TUNER indication (7)
- 5 Graphic Equalizer indication (21)
- 6 Multi-display (7, 12, 21)
- 7 CD play mode indications (8)
- 8 CLIP indicator (11)
- 9 Tape direction mode indication (14)
- 10 Timer indication (24)
- 11 VOLUME indication (7)
- 12 KARAOKE \ PON/MPX R L indication (25) (E, AUS, PX, MX, AR models)
- 13 DBFB indication (20)
- 14 SUR indication (15, 21)
- 15 SYNC REC indicator (15) 16 Tuning mode indications (12)
- 17 STEP/frequency waves indication (12)
- 18 TUNED/STEREO/MONO indications (12)

#### Remote

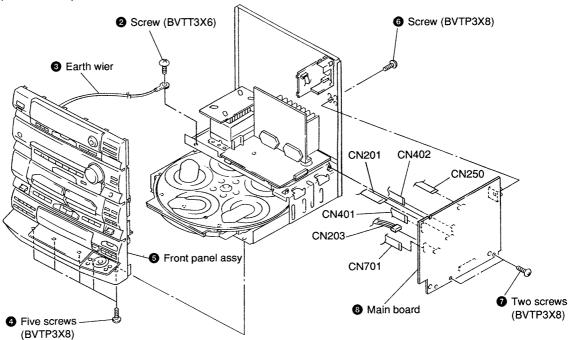


## SECTION 2 DISASSEMBLY

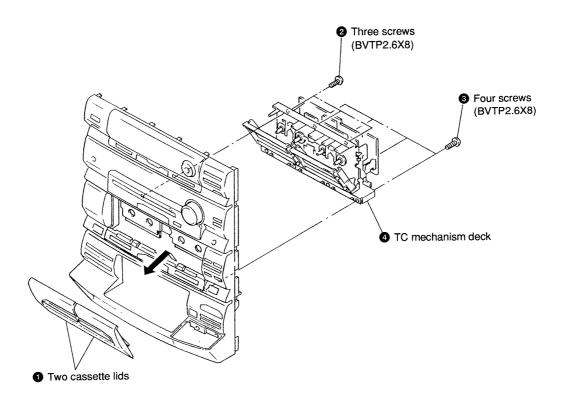
Note: Follow the disassembly procedure in the numerical order given.

#### 2-1. FRONT PANEL ASSY AND MAIN BOARD

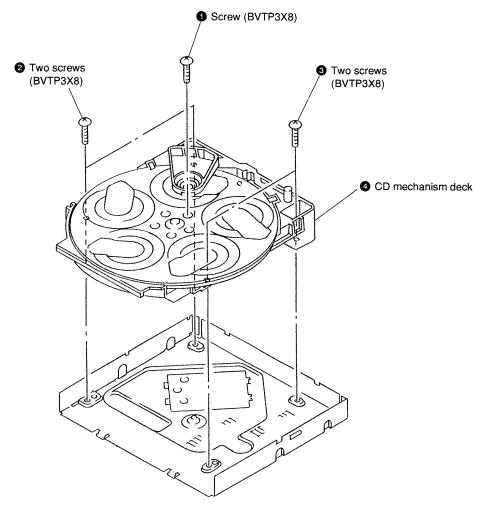
- 1 Remove the connectors.
  - · Main board (six connectors)



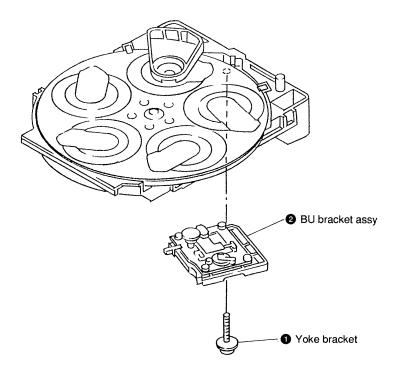
#### 2-2. TC MECHANISM DECK



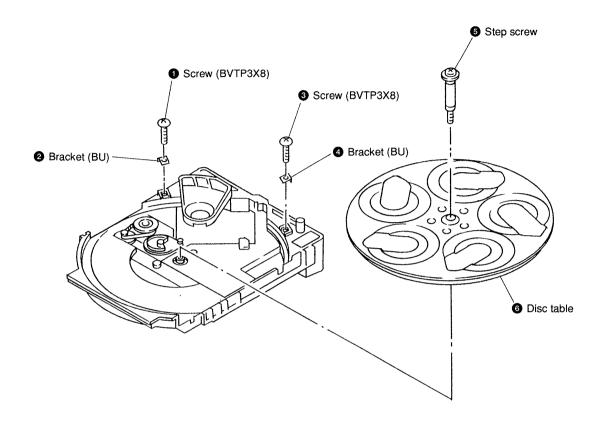
#### 2-3. CD MECHANISM DECK



#### 2-4. BU BRACKET ASSY



#### 2-5. DISC TABLE



## SECTION 3 MECHANICAL ADJUSTMENTS

#### **PRECAUTION**

 Clean the following parts with a denatured alcoholmoistened swab:

record/playback heads pinch rollers erase head rubber belts capstan idlers

- Demagnetize the record/playback head with a head demagnetizer.
- 3. Do not use a magnetized screwdriver for the adjustments.
- 4. After the adjustments, apply suitable locking compound to the parts adjusted.
- 5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

#### **Torque Measurement**

Torque	Torque meter	Meter reading
FWD	CQ-102C	36 to 61g • cm (0.5 – 0.84 oz • inch)
FWD back tension	CQ-102C	2 to 6g • cm (0.02 – 0.08 oz • inch)
REV	CQ-102RC	36 to 61g • cm (0.5 – 0.84 oz • inch)
REV back tension	CQ-102RC	2 to 6g • cm (0.02 – 0.08 oz • inch)
FF/REW	CQ-201B	61 to 143g • cm (0.85 – 1.99 oz • inch)
FWD tension	CQ-403A	100 g • cm or more (1.39 oz • inch or more)
REV tension	CQ-403R	100 g • cm or more (1.39 oz • inch or more)

## SECTION 4 ELECTRICAL ADJUSTMENTS

DECK SECTION

0 dB=0.775V

- Demagnetize the record/playback head with a head damagnetizer.
- 2. Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.
- The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
- The adjustments should be performed for both L-CH and R-ch.
- 7. Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch: OFF(AEP, UK, G, IT, EE model)

8. Set to test mode. (Press key switch simultaneously DISPLAY/DEMO), TUNER/BAND and FILE 1 button.)

Таре	Signal	Used for
P-4-A100	10 kHz, -10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment

#### Record/Playback Head Azimuth Adjustment

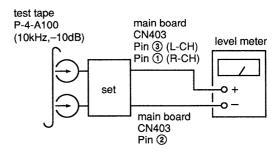
DECK A

DECK B

Note: Perform this adjustments for both decks.

Procedure :

1. Mode: Playback (FWD)



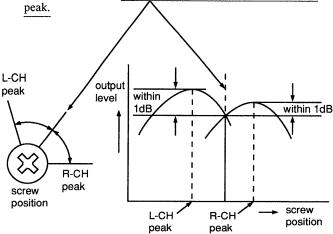
Abbreviation

G: German model.

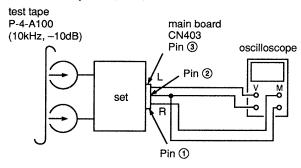
IT: Italian model.

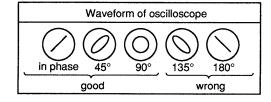
EE: East European model.

 Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of



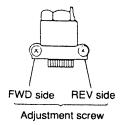
3. Mode: Playback (FWD)





- 4. Repeat steps 1 to 3 in playback (REV) mode.
- After the adjustments, apply suitable locking compound to the parts adjusted.

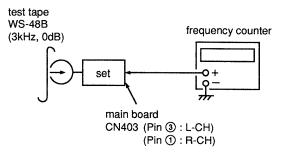
Adjustment Location: Record/Playback Head (Deck A and B)



#### Tape Speed Adjustment DECK A

#### Procedure:

Mode: Playback (FWD)



High speed adjustment

- 1. Set to test mode. (See page 10)
- 2. Insert the WS-48B into the deck A to playback.
- Press the HIGH SPEED DUBBING button. Then at HIGH speed mode.
- 4. Adjust RV652 on the MD board so that the frequency counter reading becomes  $6,000 \pm 30$  Hz.
- 5. Press the HIGH SPEED DUBBING button again to be set the NORMAL SPEED mode.

Normal speed adjustment

- 1. Set to the playback mode.
- 2. Adjust RV651 on the MD board so that the frequency counter reading becomes  $3,000 \pm 15$  Hz.

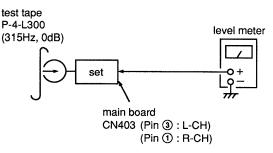
Frequency difference between deck A and deck B the beginning of the tape should be within  $\pm$  1.5%.

Adjustment Location: MD board

### Playback Level Adjustment DECK A DECK B

#### Procedure:

Mode: Playback (FWD)



Deck A is RV311 (L-CH) and RV411 (R-CH), deck B is RV301 (L-CH) and RV401 (R-CH) so that adjustment within the following adjustment level.

#### Adjustment level:

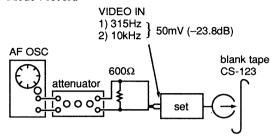
CN403 PB level: 301.5 to 338.3 mV (-8.2 to -7.2 dB) level difference between the channels: within ±0.5 dB

Adjustment Location: MD board

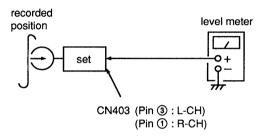
#### Record Bias Current Adjustment | DECK B

#### Procedure:

1. Mode: record



#### 2. Mode: Playback



Confirm playback the signal recorded in step 1 become adjustment level as follows.

If these levels do not adjustment level, adjust the RV341 (L-CH) and RV441 (R-CH) on the MD board to repeat step 1 and 2.

Adjustment level: The playback output of 10 kHz level

difference against 315Hz reference should

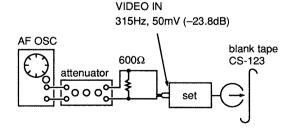
be  $\pm 0.5 dB$ 

Adjustment Location: MD board

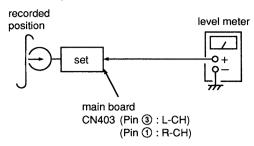
#### Record Level Adjustment DECK B

#### Procedure:

1. Mode: record



#### Mode: Playback



Confirm playback the signal recorded in step 1 become adjustment level as follows.

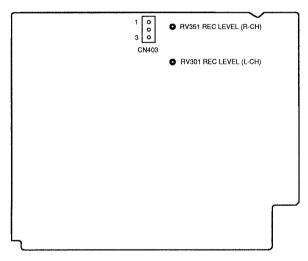
If these levels do not adjustment level, adjust the RV301 (L-CH) and RV351 (R-CH) on the main board to repeat steps 1 and

#### Adjustment level:

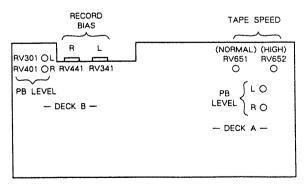
CN403 PB level: 47.2 to 53.0 mV (-24.3 to -23.3 dB)

Adjustment Location: main board

#### [MAIN BOARD] (Component Side)



#### [MD BOARD] (Conductor Side)



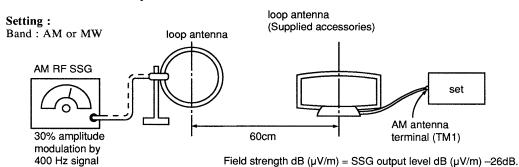
#### TUNER SECTION

0dB=1μV

**Note:** As a front-end (FE1) is difficult to repair if faulty, replace it with new one.

#### **AM Tuned Level Adjustment**

**Note:** FM Tuned Level adjustment should be performed after this AM Tuned Level adjustment.



Carrier frequency: 999kHz (at 9kHz step) 1000kHz (at 10kHz step)

#### Procedure:

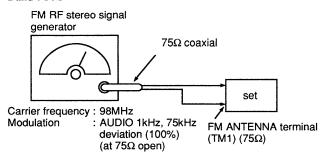
- 1. Set the output of SSG so that the input level of the set becomes 55 dB.
- 2. Tune the set to 999 kHz or 1000 kHz.
- 3. Adjust RV41 (AEP, UK, IT, G, EE models), RV42 (other models) to the point (moment) when the TUNED indicator will change from going off to going on.

#### Adjustment Location: TCB board

#### **FM Tuned Level Adjustment**

**Note :** This adjustment should be performed after the AM Tuned Level Adjustment.

#### Setting: Band: FM



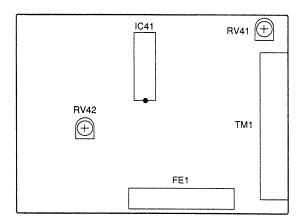
#### Procedure:

- Supply a 25dBµ 98 MHz signal from the ANTENNA terminal.
- 2. Tune the set to 98 MHz.
- Adjust RV42 (AEP, UK, IT, G, EE models), RV41 (other models) to the point (moment) when the TUNED indicator will change fro in going off to going on.

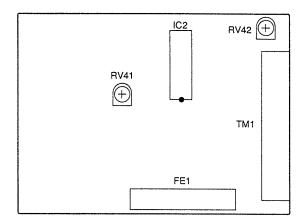
#### Adjustment Location: TCB board

#### **Adjustment Location:**

## AEP, UK, G, IT, EE model [TCB BOARD] (Component Side)



## Other model [TCB BOARD] (Component Side)



• Abbreviation

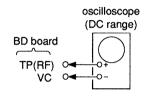
G: German model
IT: Italian model
EE: East European model

#### **CD SECTION**

#### Note:

- 1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
- Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
- 3. Use an oscilloscope with more than  $10M\Omega$  impedance.
- Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
- Adjust the focus bias adjustment when optical block is replaced.

#### **Focus Bias Adjustment**

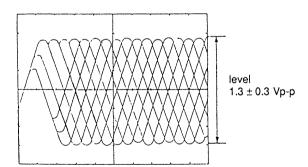


#### Procedure:

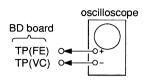
- Connect oscilloscope to test point TP (RF). (GND terminal: VC)
- Turned Power switch on.
- 3. Put disc (YEDS-18) in and playback.
- Adjust RV101 so that the waveform is clear.
   (Clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.)
- 5. After adjustment, check the RF signal level.

• RF signal

VOLT/DIV: 200 mV TIME/DIV: 500 nS



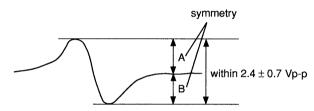
#### S Curve Check



#### Procedure:

- 1. Connect oscilloscope to test point TP (FEO).
- Connect between test point TP (FOK) and GND by lead wire.
- 3. Turn Power switch on.
- 4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
- Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 2.4 ± 0.7 Vp-p.

#### S-curve waveform

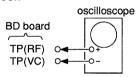


6. After check, remove the lead wire connected in step 2.

**Note:** • Try to measure several times to make sure than the ratio of A: B or B: A is more than 10: 7.

• Take sweep time as long as possible and light up the brightness to obtain best waveform.

#### **RF Level Check**



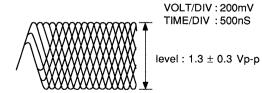
#### Procedure:

- 1. Connect oscilloscope to test point TP (RF) on BD board.
- 2. Turned Power switch on.
- 3. Put disc (YEDS-18) in and playback.
- Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

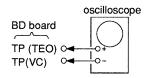
#### Note:

Clear RF signal waveform means that the shape " $\Diamond$ " can be clearly distinguished at the center of the waveform.

#### RF signal waveform



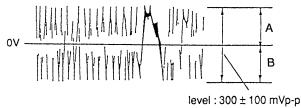
#### E-F Balance Check



#### Procedure:

- Connect test point TP (ADJ) on Main board to GND with a lead wire.
- 2. Connect oscilloscpe to test point TP (TEO).
- 3. Turned Power switch on.
- 4. Put disc (YEDS-18) in and playback.
- Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0Vdc, and check this level.

Traverse waveform



Specified level : •  $\frac{A-B}{2(A+B)}$  X 100=less than ± 7% • A+B=300 ± 100 mVp-p

6. Remove the lead wire connected in step 1.

#### Focus/Tracking Gain Adjustment (RV102, RV103)

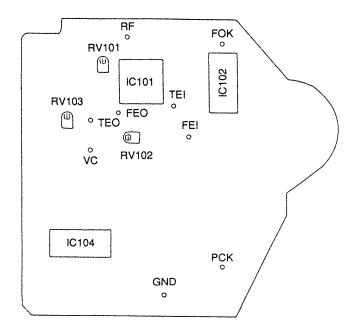
This gain has a margin, so even if it is slightly off. There is no problem.

Therfore, do not perform this adjustment.

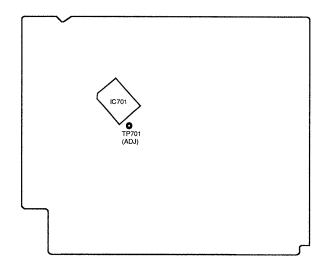
Please note that it should be fixed to mechanical center position when you moved and do not know original position.

#### **Adjustment Location:**

#### [ BD BOARD ] (Conductor Side)

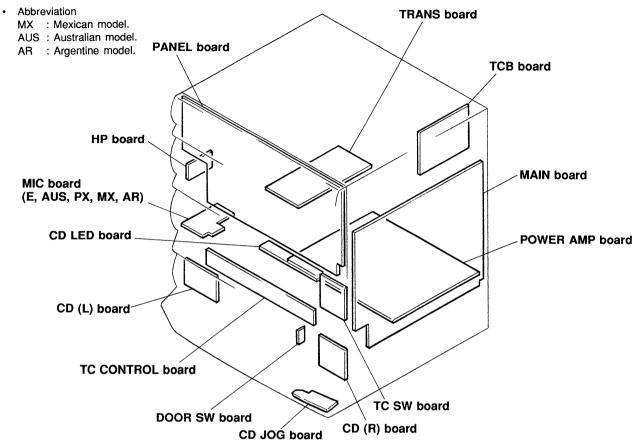


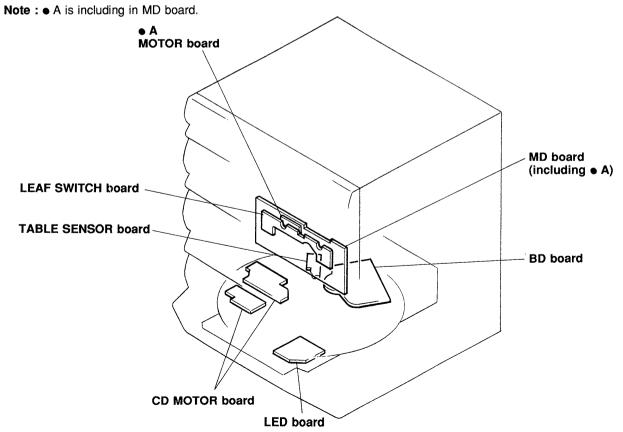
#### [ MAIN BOARD ] (Conductor Side)



## SECTION 5 DIAGRAMS

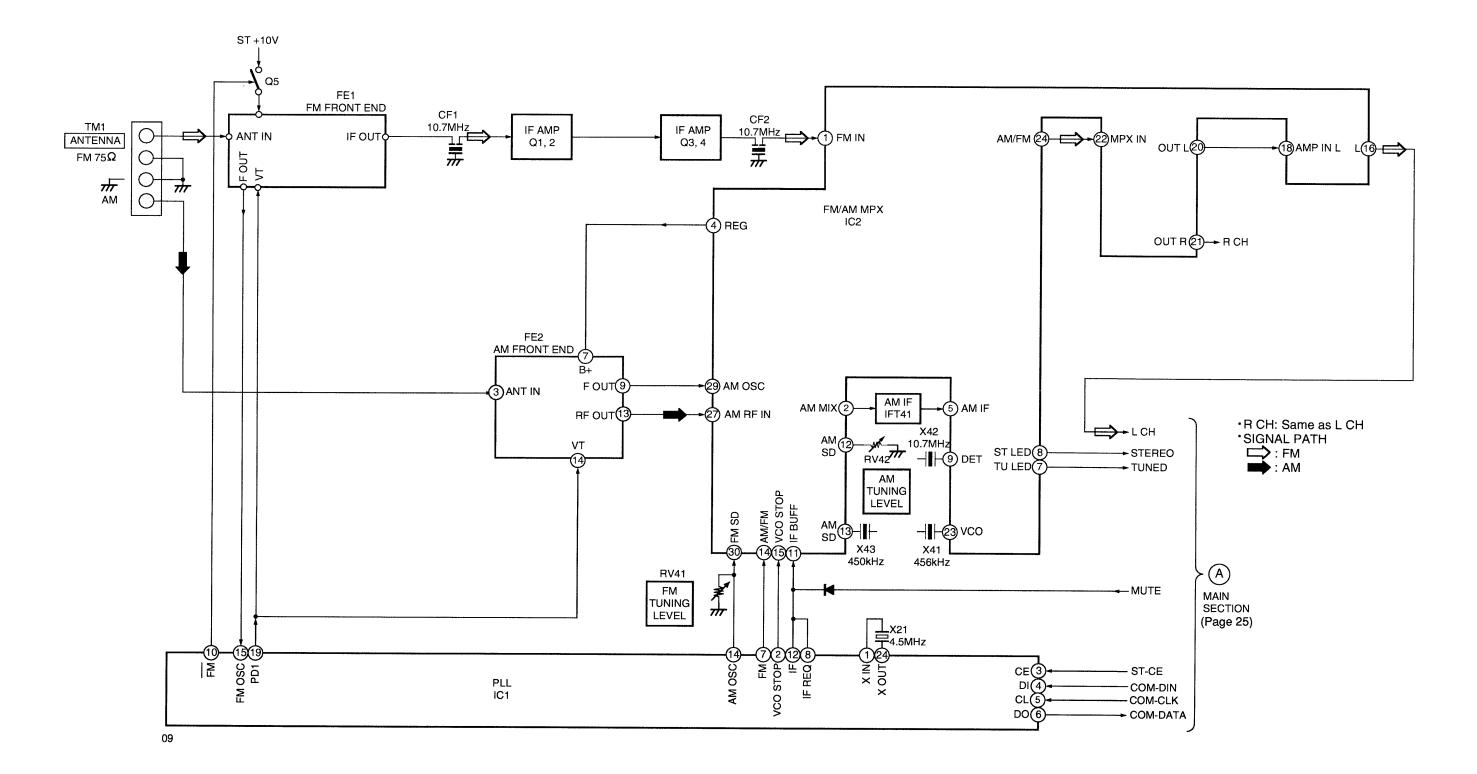
#### 5-1. CIRCUIT BOARDS LOCATION



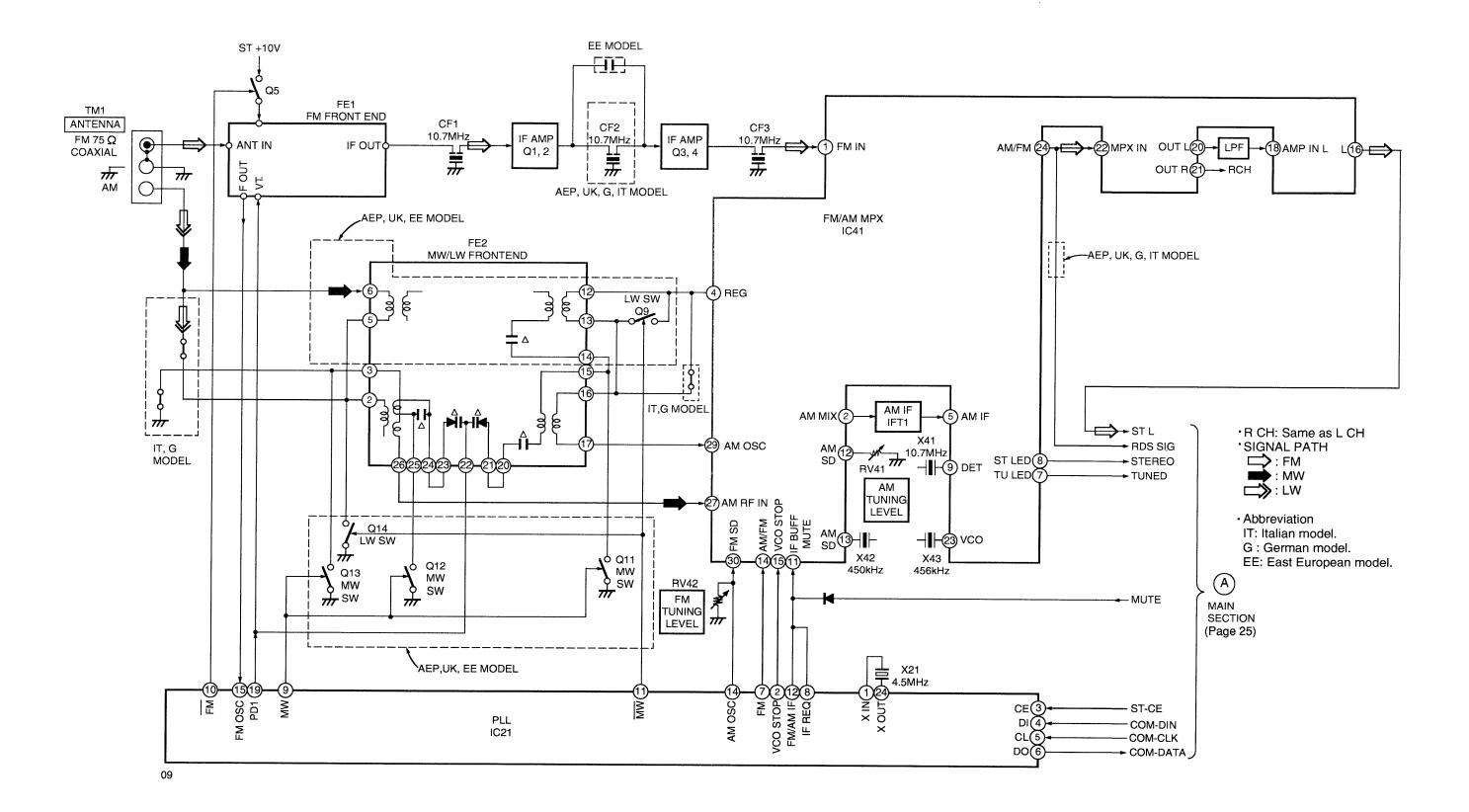


#### 5-2. BLOCK DIAGRAMS

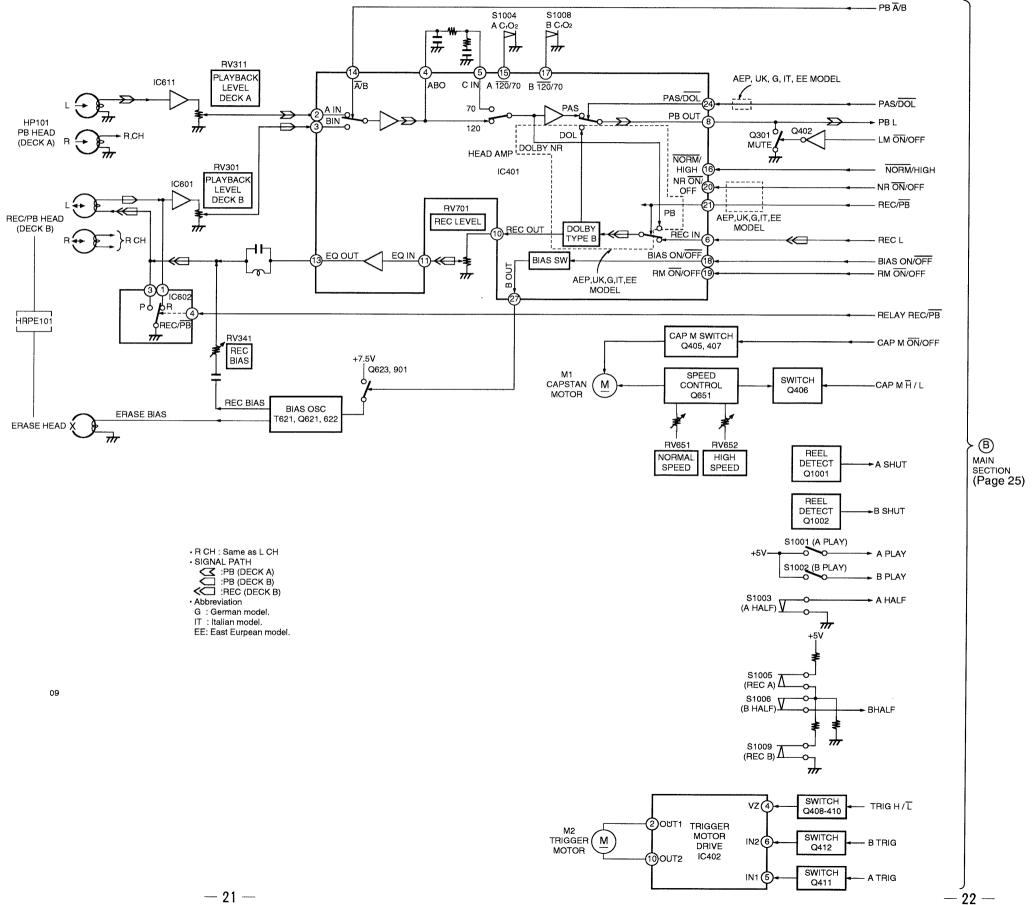
— TUNER SECTION — (E, AUS, MX, PX, AR MODELS)



#### — TUNER SECTION — (E, AUS, MX, PX, AR MODELS)

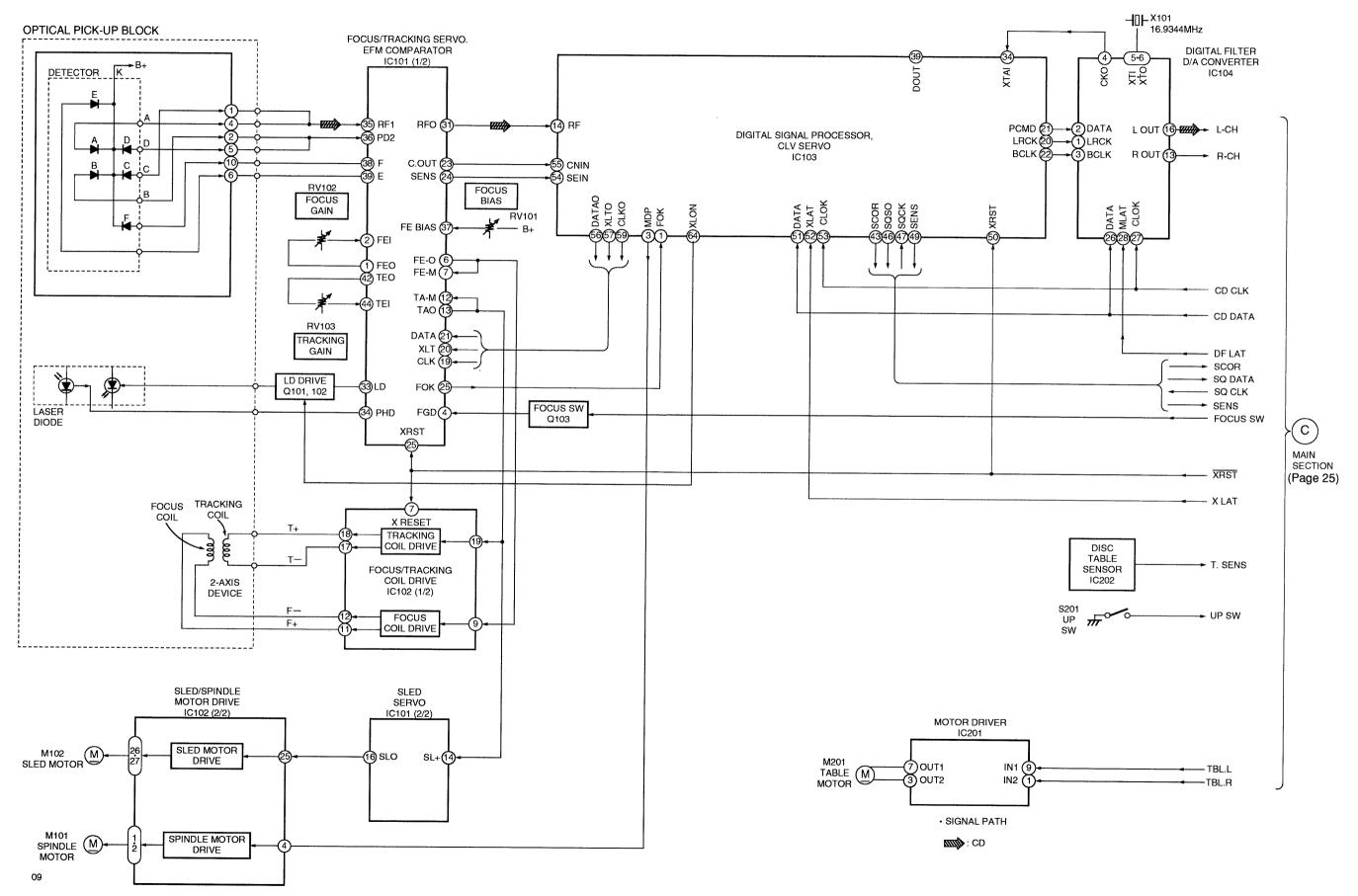


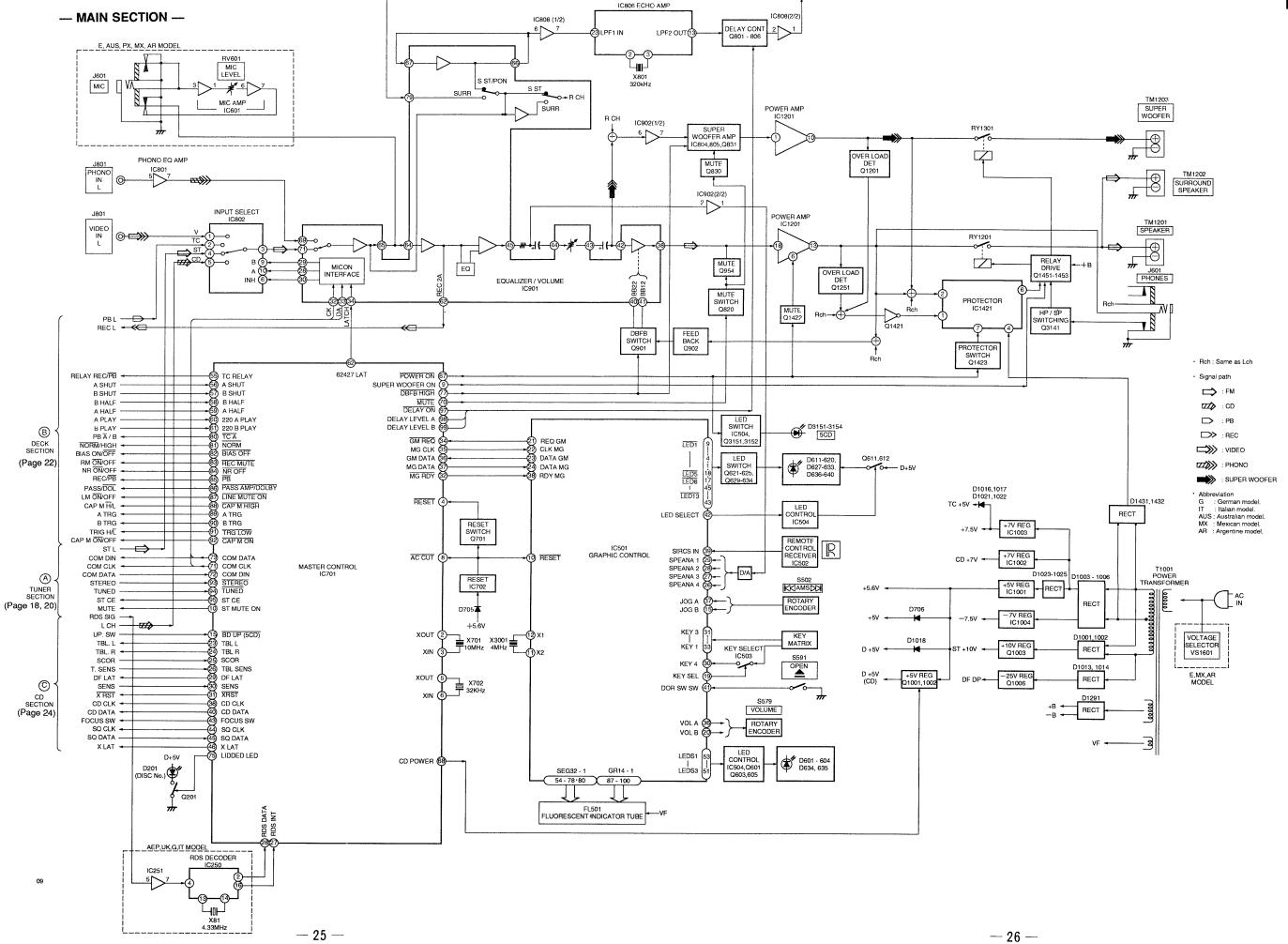
#### - DECK SECTION -



-21-

#### - CD SECTION -

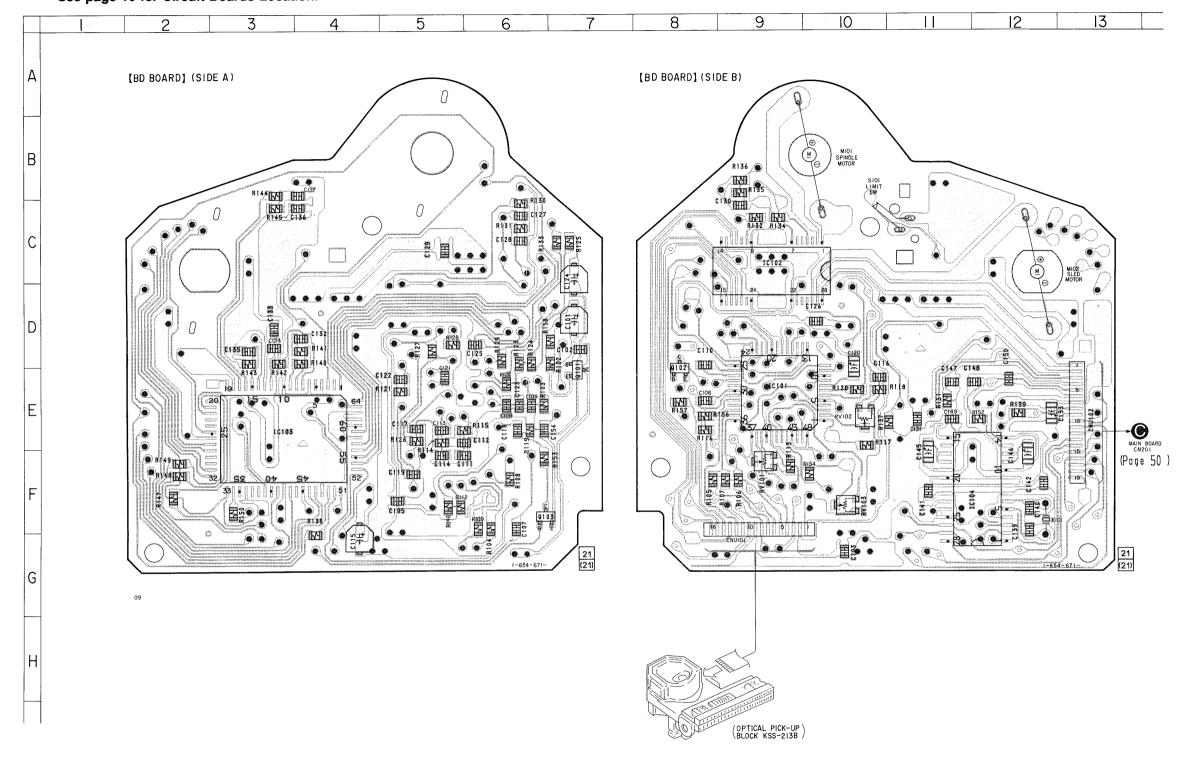




## 5-3. PRINTED WIRING BOARD — CD SECTION — • See page 16 for Circuit Boards Location.

## Semiconductor Location

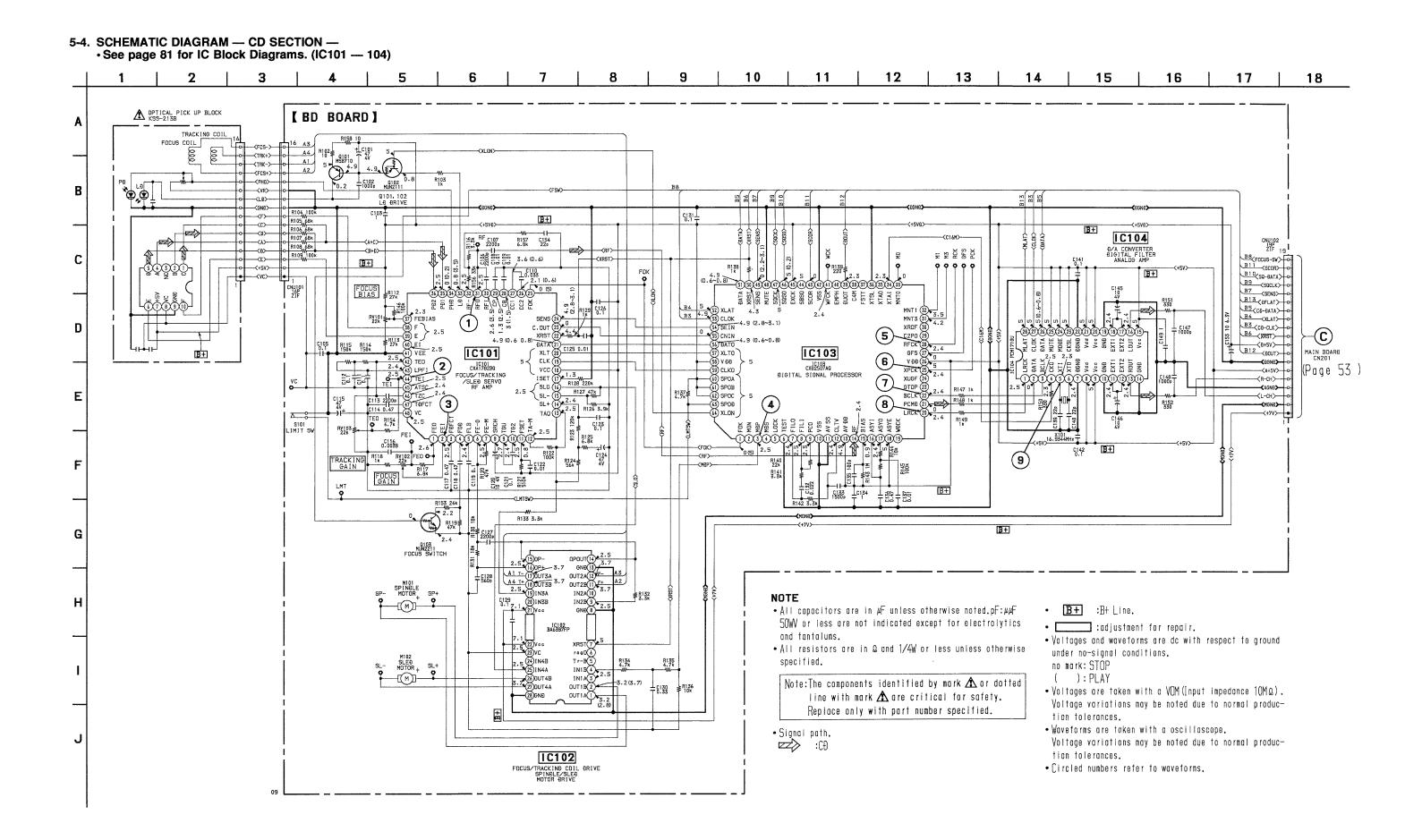
Ref. No.	Location
IC101	E-9
IC102	C-8
IC103	E-3
IC104	F-11
Q101	D-6
Q102	D-7
Q103	F-6



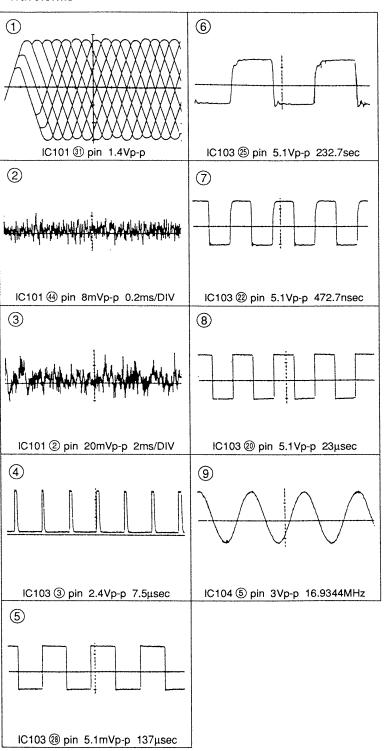
#### Note:

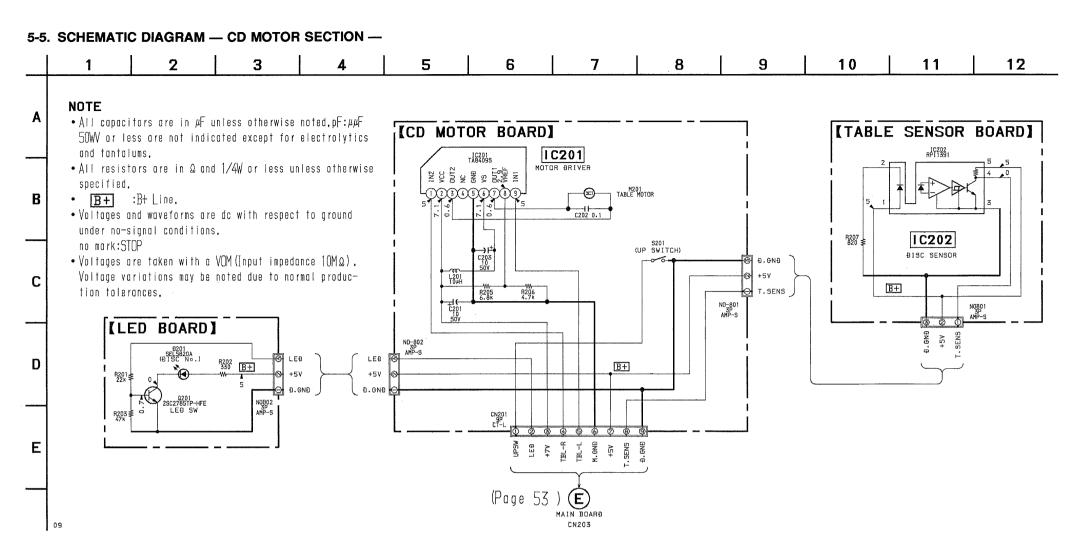
o : parts extracted from the component side.
Through hole.

Pattern from the side which enable seeing.
 (The other layer's patterns are not indicated.)

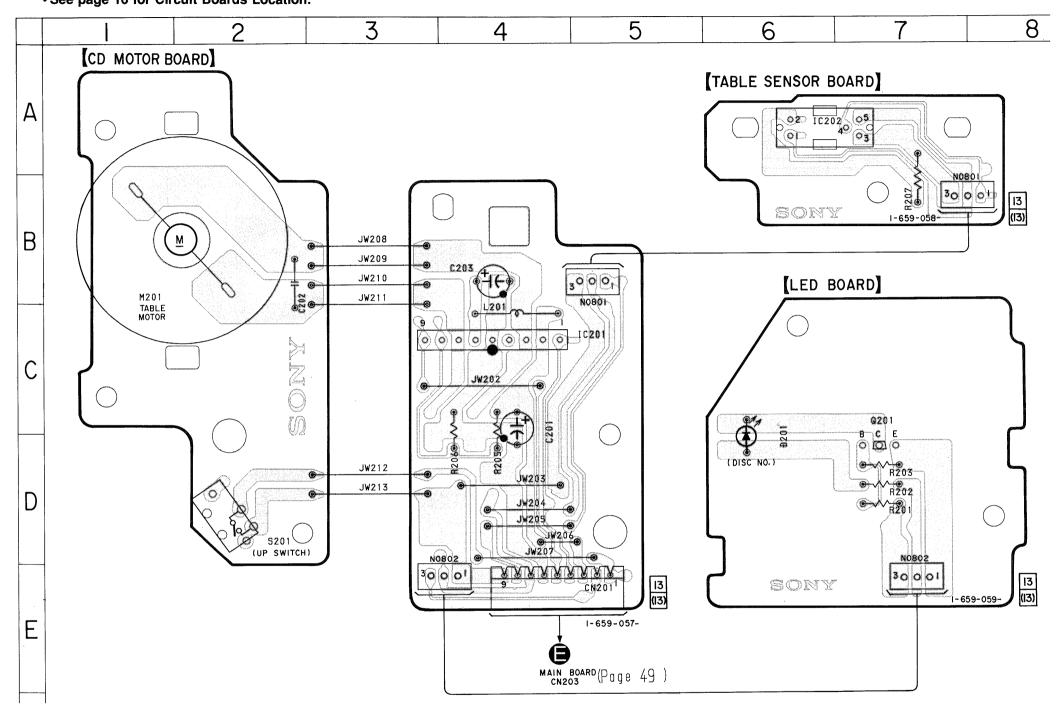


#### Waveforms





## 5-6. PRINTED WIRING BOARD — CD MOTOR SECTION — • See page 16 for Circuit Boards Location.

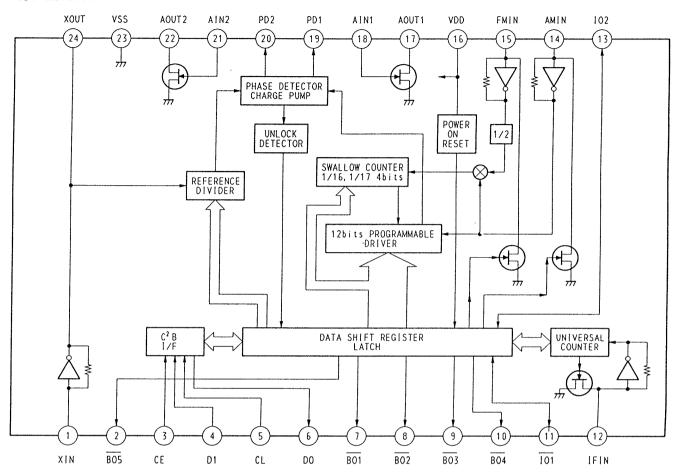


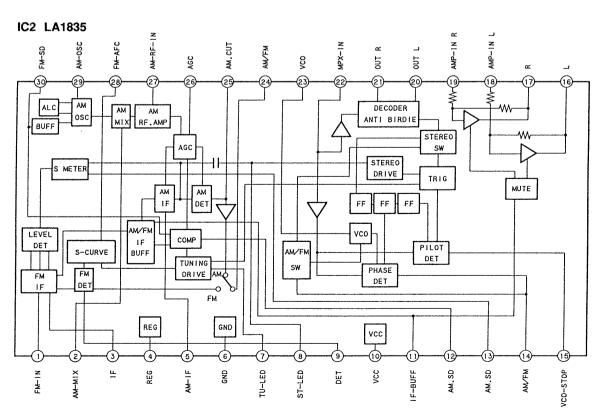
#### Note:

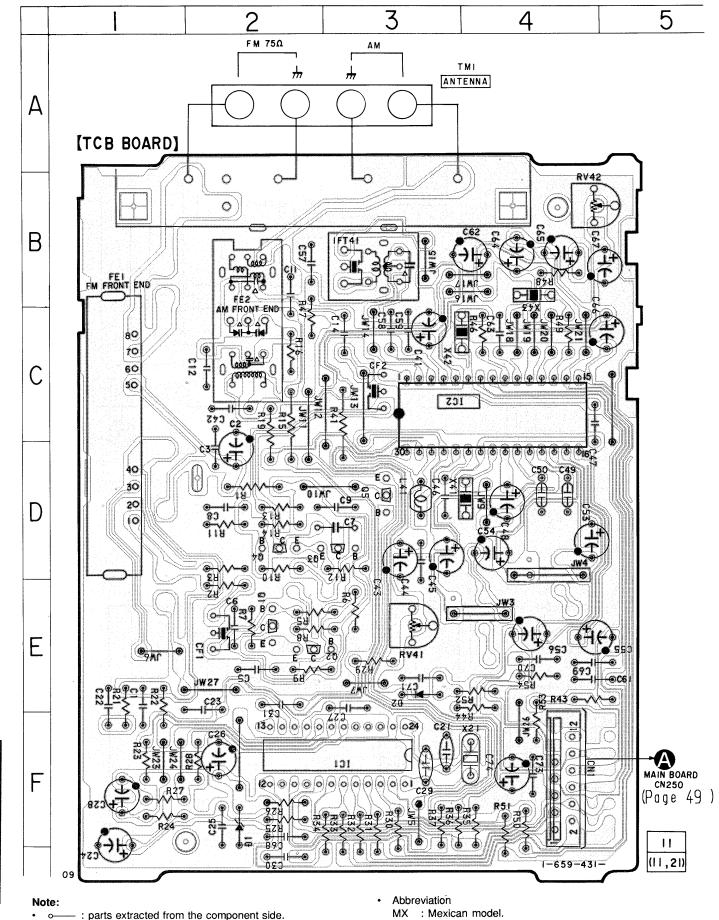
- o——: parts extracted from the component side.
- Pattern from the side which enable seeing.

#### · IC Block Diagrams

#### IC1 LC72130





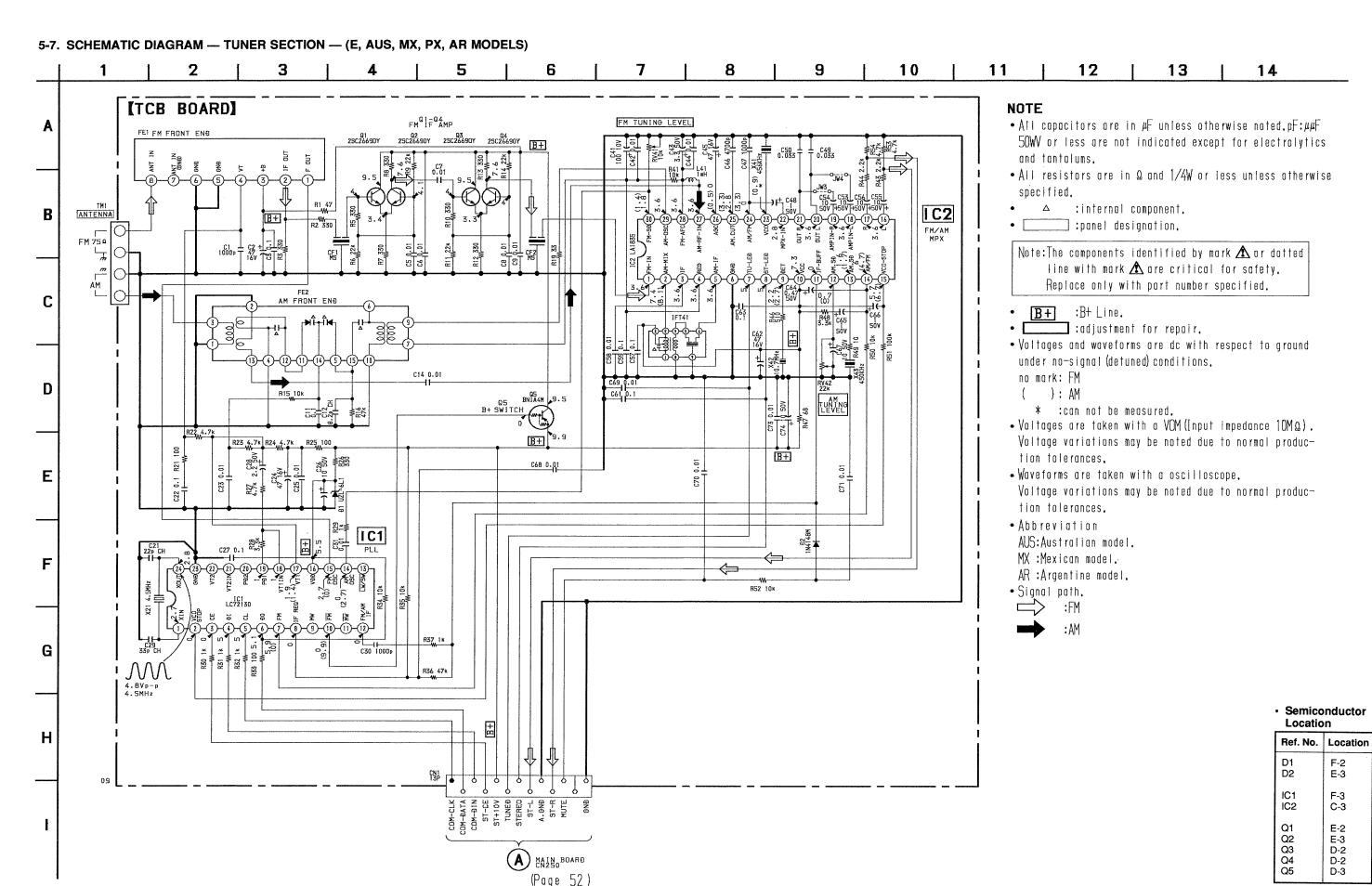


AUS: Australian model.

AR : Argentine model.

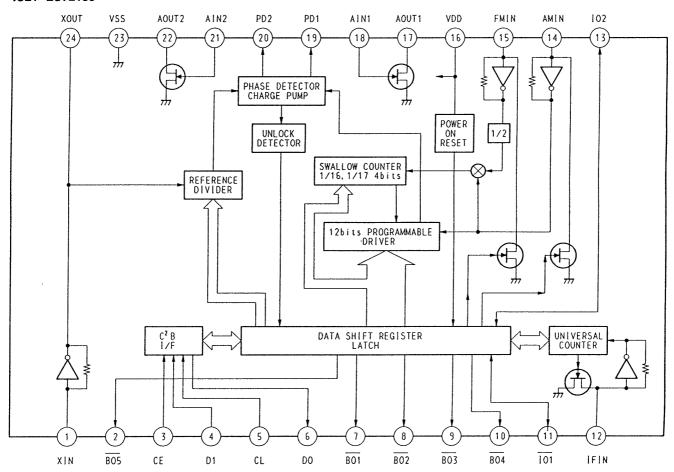
△ : internal component.

• [\_\_\_\_]: Pattern from the side which enable seeing.

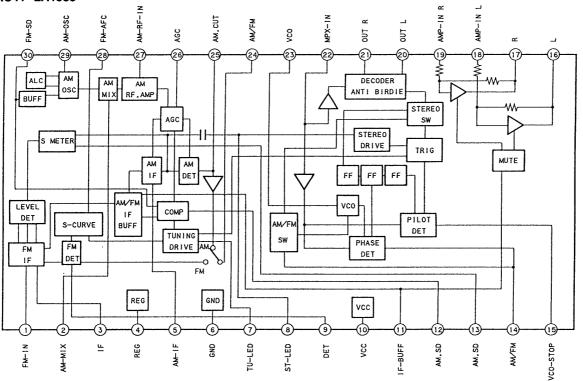


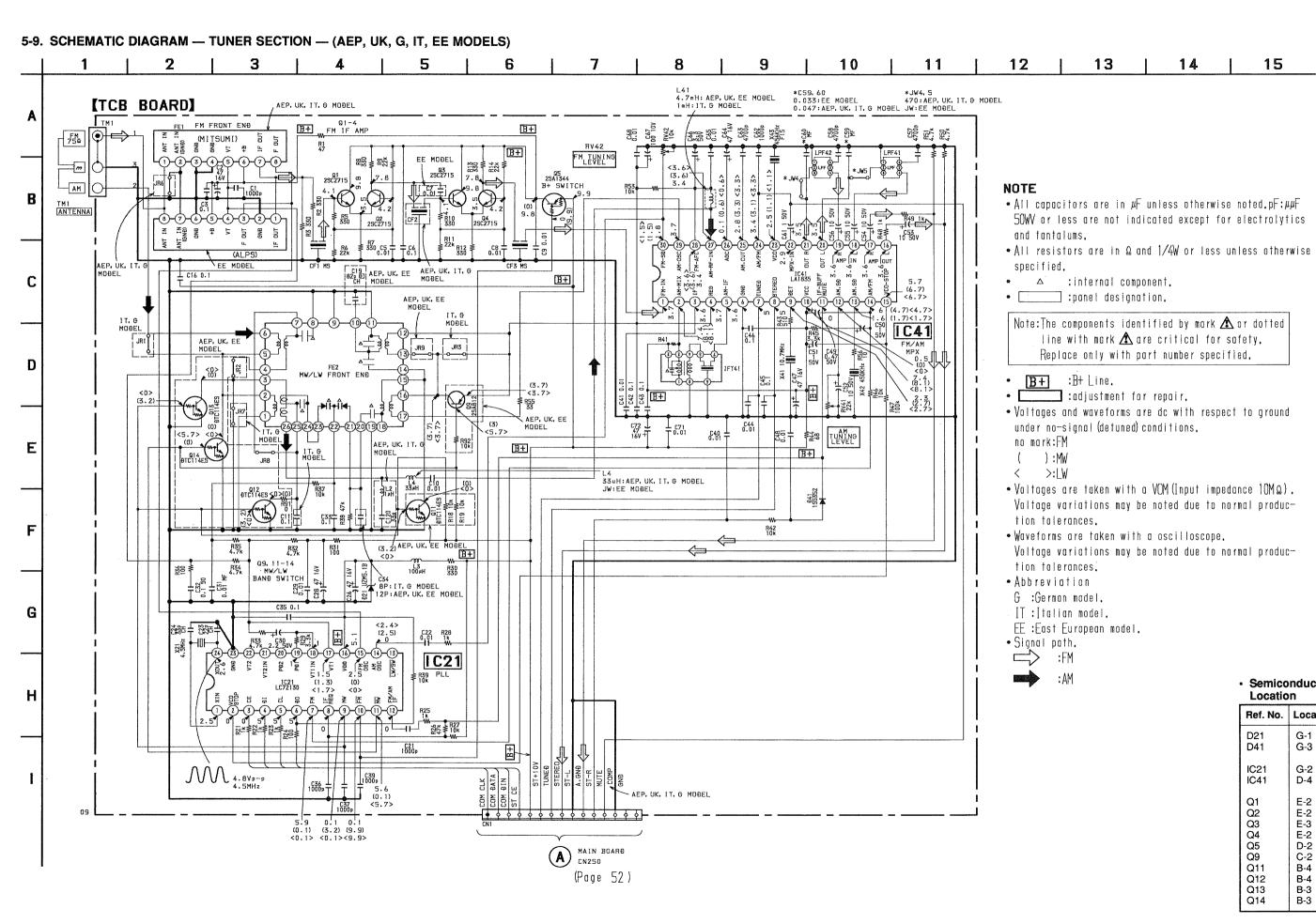
#### · IC Block Diagrams

#### IC21 LC72130

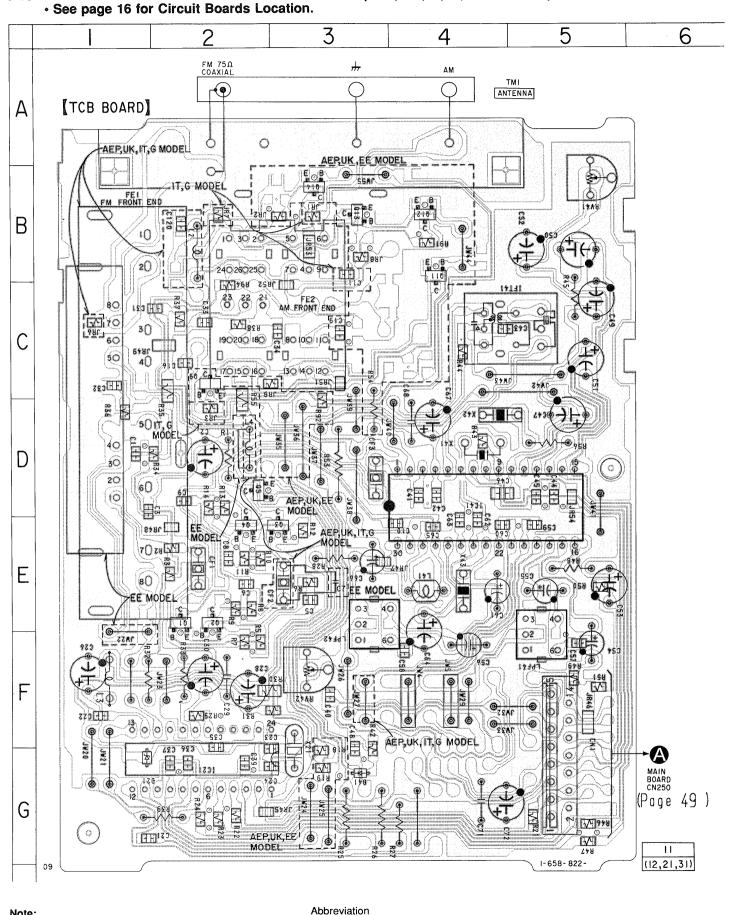


#### IC41 LA1835





### 5-10. PRINTED WIRING BOARD — TUNER SECTION — (AEP, UK, G, IT, EE MODELS)



## Semiconductor

Location			
Ref. No.	Location		
D21 D41	G-1 G-3		
IC21 IC41	G-2 D-4		
Q1 Q2 Q3 Q4 Q5 Q9 Q11 Q12 Q13 Q14	E-2 E-3 E-2 D-2 C-2 B-4 B-4 B-3 B-3		

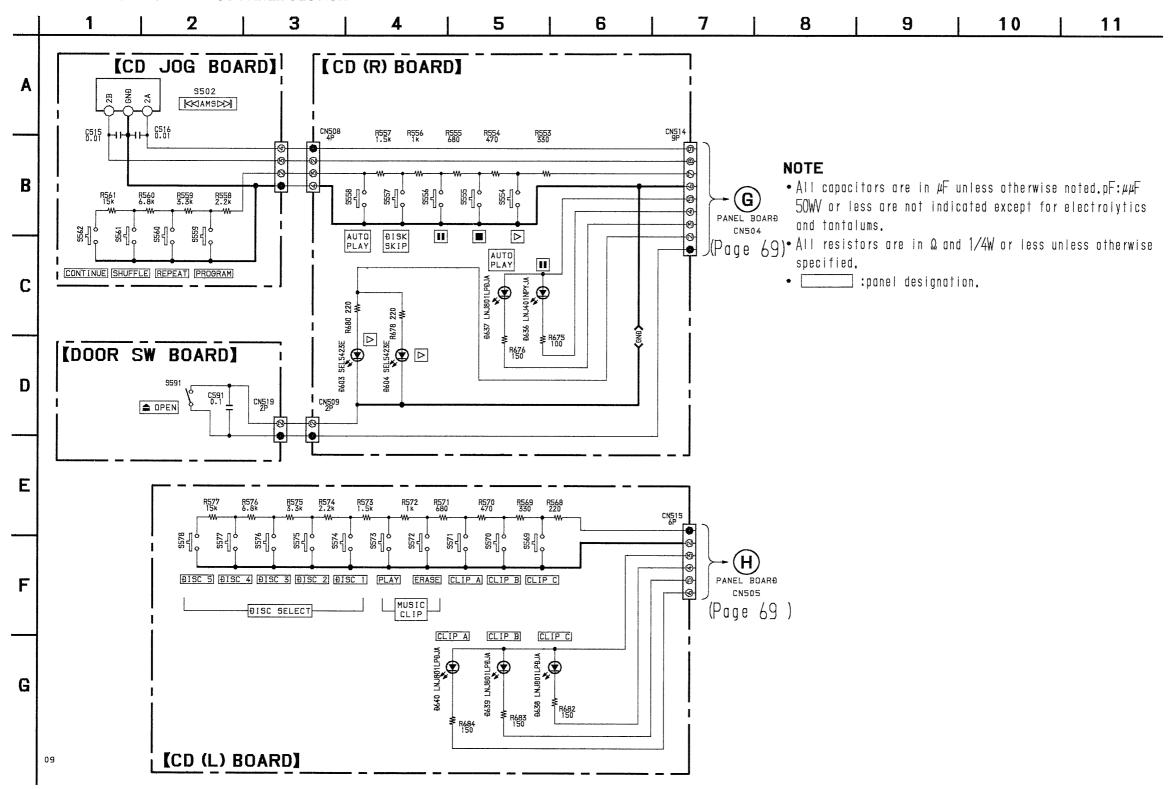
• o : parts extracted from the component side. Δ : internal component. · Pattern from the side which enable seeing.

G : German model. IT: Italian model. EE : East European model.

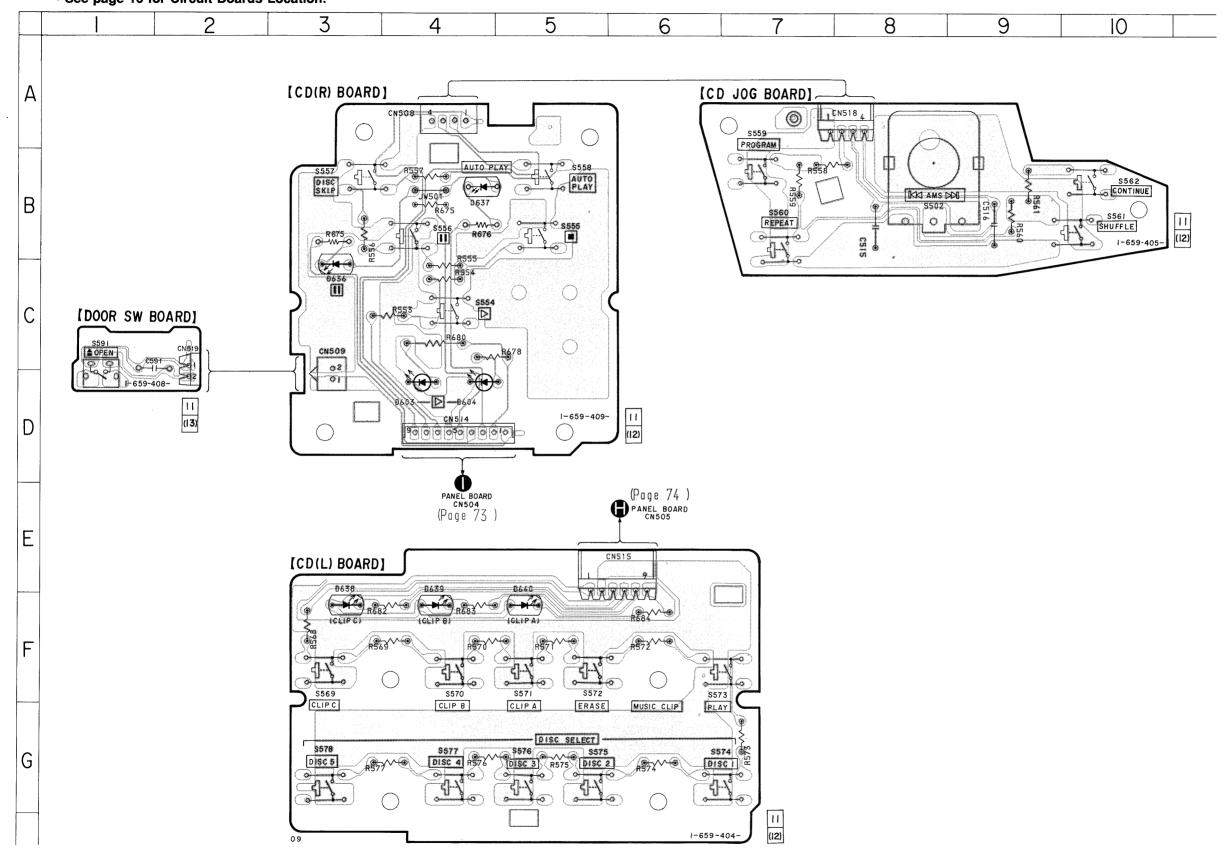
**— 42 —** 

13

14



## 5-12. PRINTED WIRING BOARD — CD PANEL SECTION — • See page 16 for Circuit Boards Location.



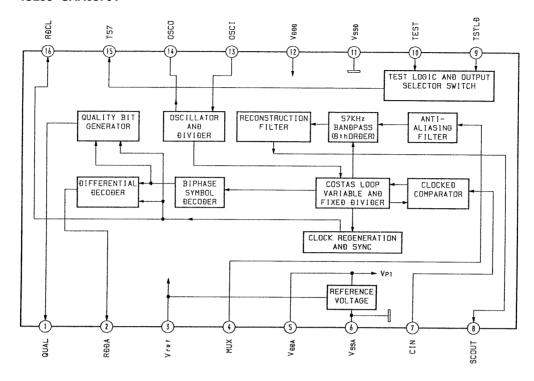
#### Note:

- $\bullet \quad \circ ----$  : parts extracted from the component side.
- Pattern from the side which enable seeing.

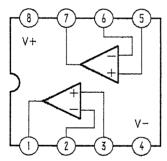
#### **HCD-N455**

#### • IC Block Diagrams

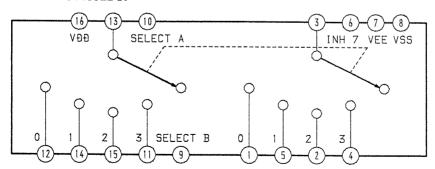
#### IC250 SAA6579T



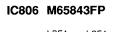
#### IC251 RC4558P

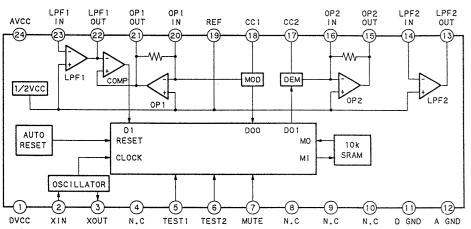


#### IC802 MC14052BCP



#### 5-13. PRINTED WIRING BOARD — MAIN SECTION — See page 16 for Circuit Boards Location.





#### Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D201 D202 D251 D401 D701 D702 D703 D704 D705 D706 D707 D801	F-8 F-8 B-10 B-4 E-4 F-4 E-3 F-3 E-4 I-2 F-4 H-9	IC802 IC804 IC805 IC806 IC808 IC831 IC901 IC902 IC1001 IC1002 IC1003 IC1004	C-14 K-14 J-10 G-10 L-14 G-14 J-12 H-5 H-6 J-6 J-5
D901 D902 D1001 D1003 D1004 D1005 D1006 D1007 D1008 D1009 D1010 D1011 D1012 D1013 D1014 D1015 D1016 D1017 D1018 D1017 D1018 D1021 D1022 D1023	I-12 I-13 K-9 J-9 J-9 J-9 I-3 I-9 I-6 I-4 J-3 J-4 K-4 H-6 I-2 I-3 I-3 I-3 I-3 I-3 I-3 I-3 I-3 I-3 I-3	Q301 Q351 Q401 Q402 Q403 Q406 Q407 Q408 Q409 Q410 Q411 Q411 Q411 Q801 Q803 Q803 Q804 Q805 Q806 Q820 Q830	B-8 B-8 A-3 C-7 C-3 B-4 C-3 D-3 D-2 D-2 D-2 E-5 H-10 H-9 H-10 H-9 H-10 H-10 H-10 H-11 H-11 K-13
D1830 D1831 IC250 IC251 IC401 IC402 IC701 IC702 IC801	K-15 K-15 B-11 B-12 B-5 D-2 D-5 F-3 B-14	Q901 Q902 Q951 Q952 Q953 Q954 Q1001 Q1002 Q1003 Q1006	I-14 I-13 H-12 G-12 K-11 K-11 H-3 I-8 J-4

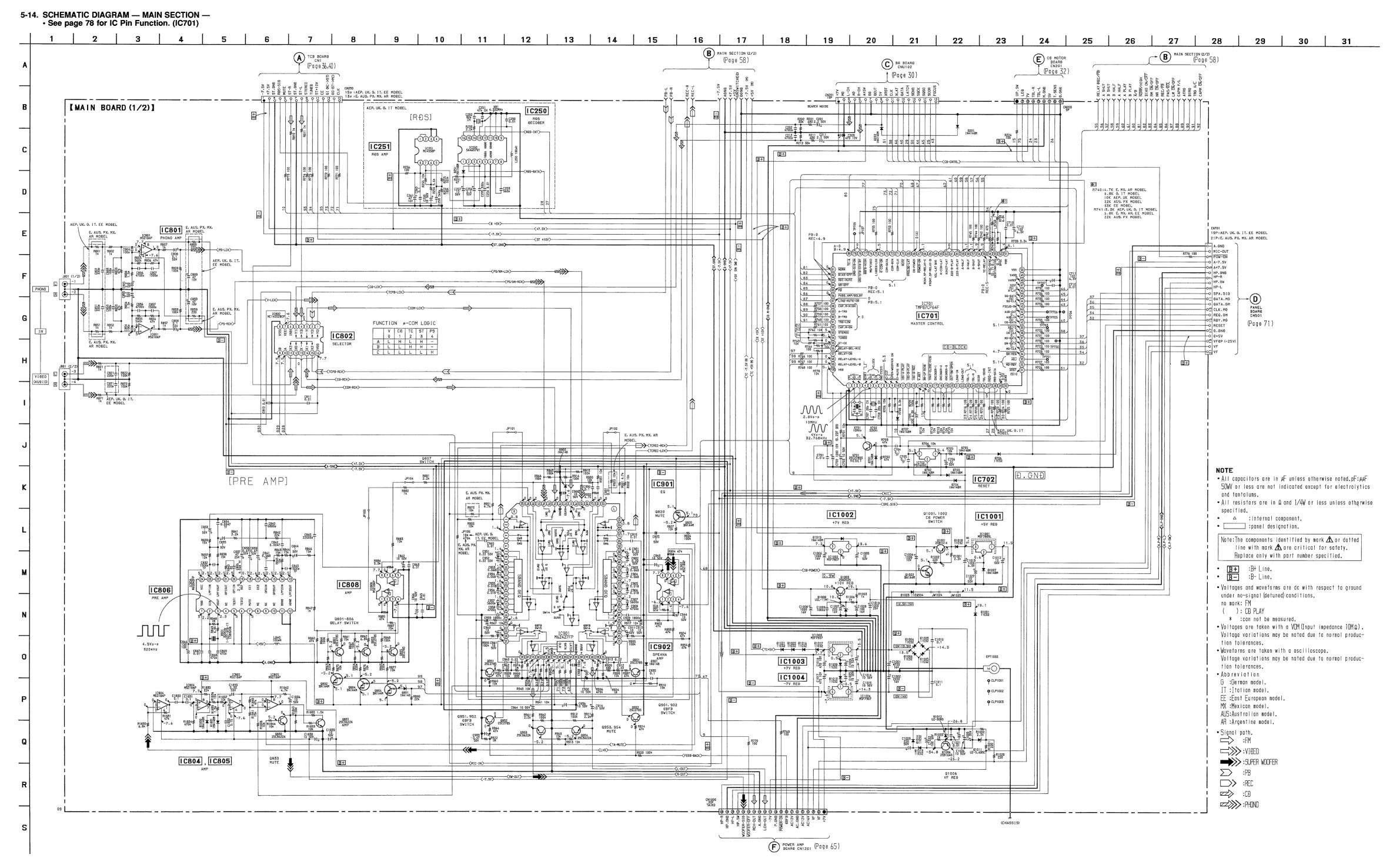
	2 3	4 5 6 7 8	9 10 11 12	13 14 15 16
	[MAIN BOARD]	LEAF S (Poge 59 )	WITCH TEB BOARD (Page 38,42 )	
A	80	NV5551 BONGOS	AEP,UK,G,IT-MODEL	1972 - 19
		AFFUKOL STORY		
			18250 18250	AEP-WKG-TJEEE E-AUS-PK-MKAR MODEL
	B- 9 0 0 9 JN-9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		145 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	AFRUK,6,IT,EE
(Page	80ARD N601 60		JANS 1 PAS S JAVES 1 J	S.P.K.M.C. E. AUS.PX, MX, AR MODEL
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	C403 - 1-0 E0 - 10	ACPUKSTITEE OCTO	JV205	PHONO
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J	120121			
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L		JA 106	JUBS (C. JUB) (C. JUB	
				1-659-110-
	09	(CHASSIS)	Power AMP BOARD (Page 64 )	
		<u> </u>		50

parts extracted from the component side.
parts mounted on the conductor side.

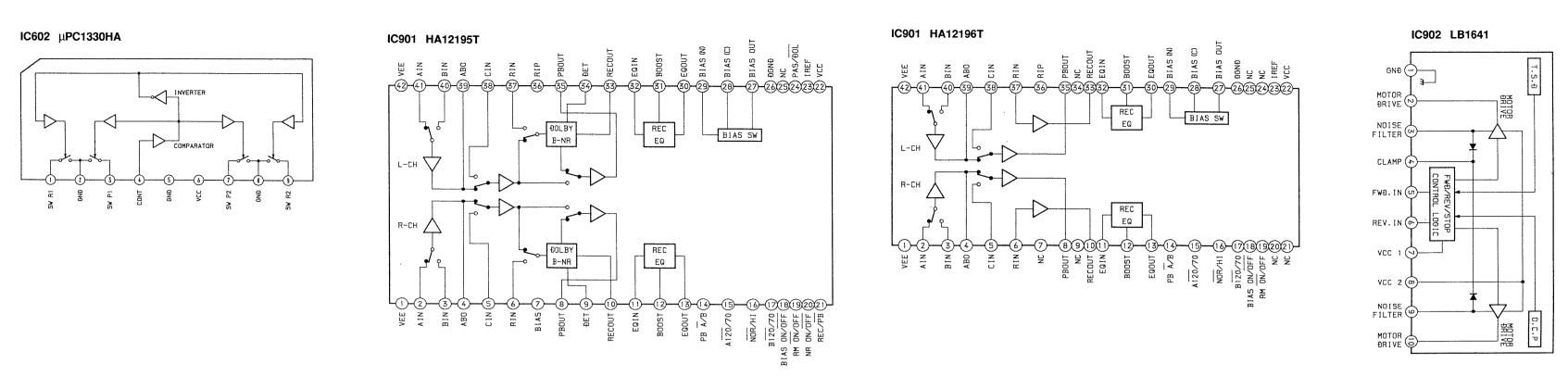
\( \Delta \) : internal component.
 \( \text{Pattern from the side which enable seeing.} \)
 Abbreviation

G : German model. IT: Italian model. EE : East European model. MX : Mexican model. AUS: Australian model.

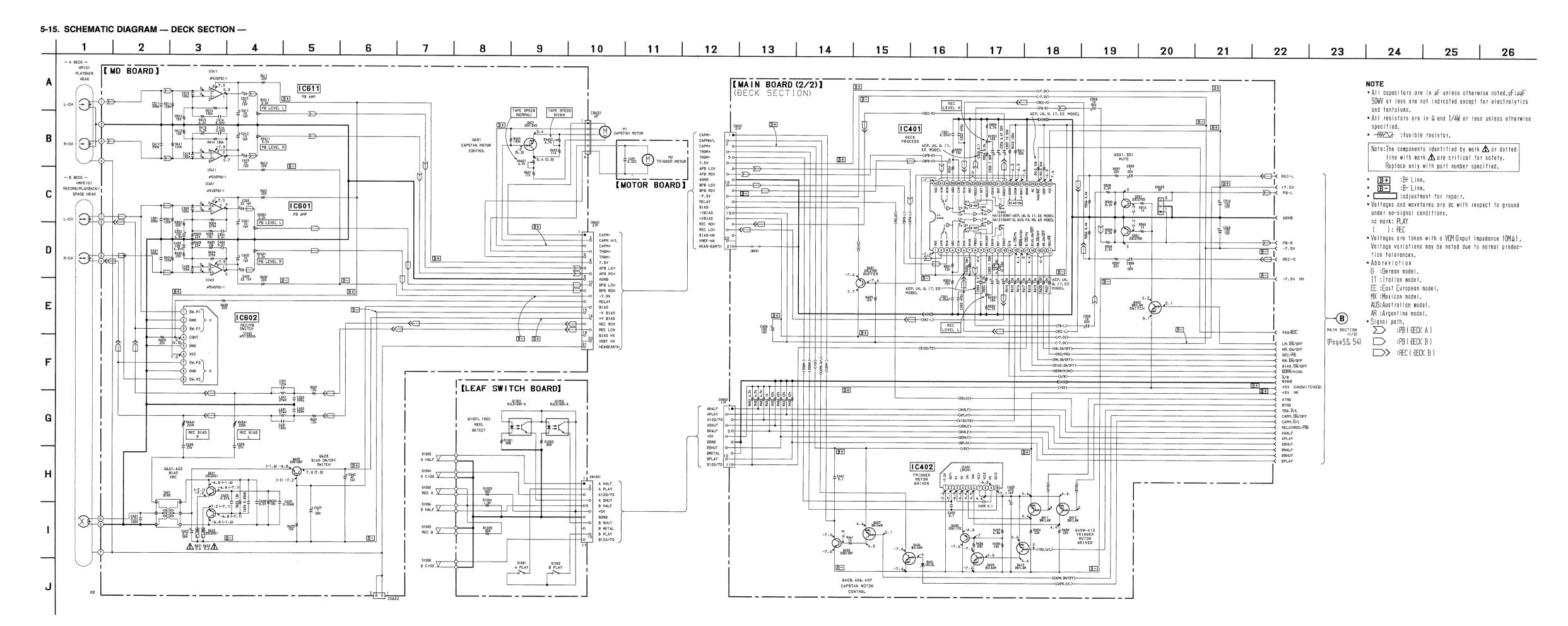
AR : Argentine model.



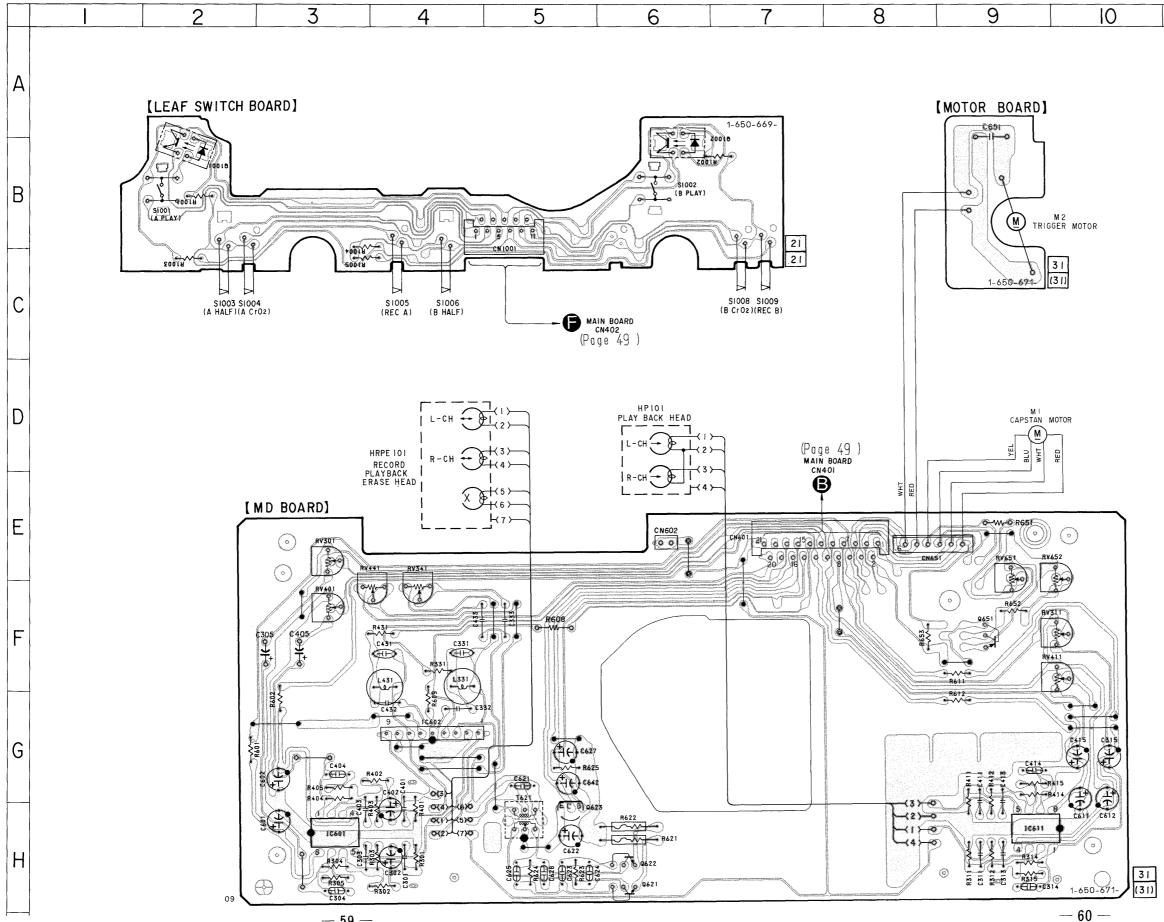
#### • IC Block Diagrams



**— 56 —** 



#### 5-16. PRINTED WIRING BOARD — DECK SECTION — · See page 16 for Circuit Boards Location.



**— 59 —** 

#### Semiconductor Location

Ref. No.	Location
IC601 IC602	H-3 G-4
IC602	H-9
Q621	H-6
Q622 Q623	H-6 H-5
Q651 Q1001	F-9 B-2
Q1001 Q1002	B-6

- parts extracted from the component side.
- Pattern from the side which enable seeing.

### 5-17. PRINTED WIRING BOARD — POWER SECTION —

•	Semiconductor
	Location

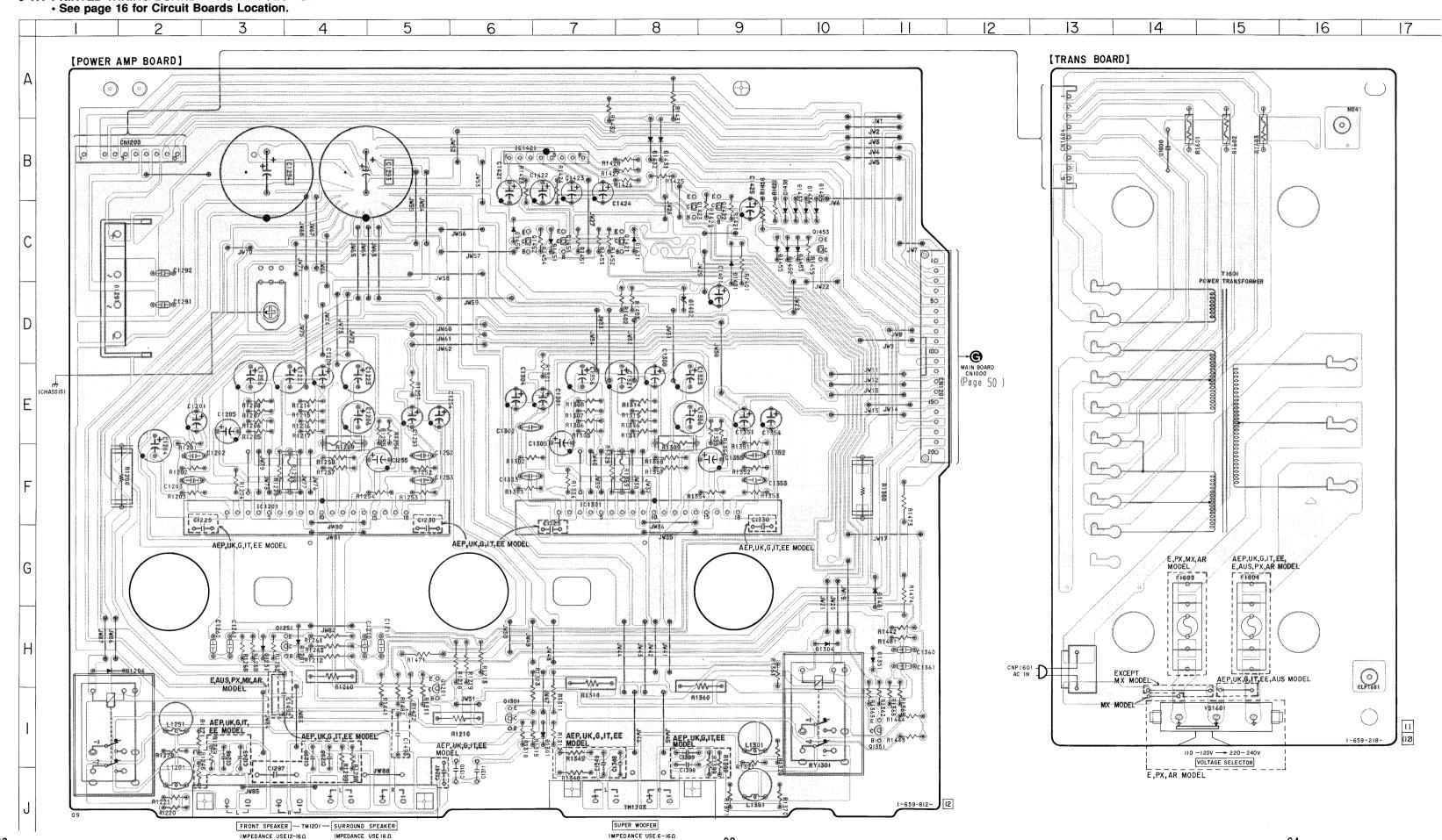
Locatio	n
Ref. No.	Location
D1201 D1204 D1251 D1291 D1301 D1304 D1351 D1401 D1402 D1421 D1431 D1432 D1435 D1436 D1437 D1438 D1451 D1452 D1453 D1453 D1454 D1455 D1454	H-4 H-2 H-3 D-1 I-7 H-10 H-11 C-9 D-8 C-8 B-8 B-10 B-10 B-10 C-7 C-10 C-10 C-9 G-11
IC1201 IC1301 IC1421	F-3 F-7 B-6
Q1201 Q1251 Q1301 Q1351 Q1421 Q1422 Q1423 Q1451 Q1452 Q1453	H-5 H-3 I-6 I-11 C-8 C-9 C-8 C-7 C-6 C-10

#### • o--- : parts extracted from the component side.

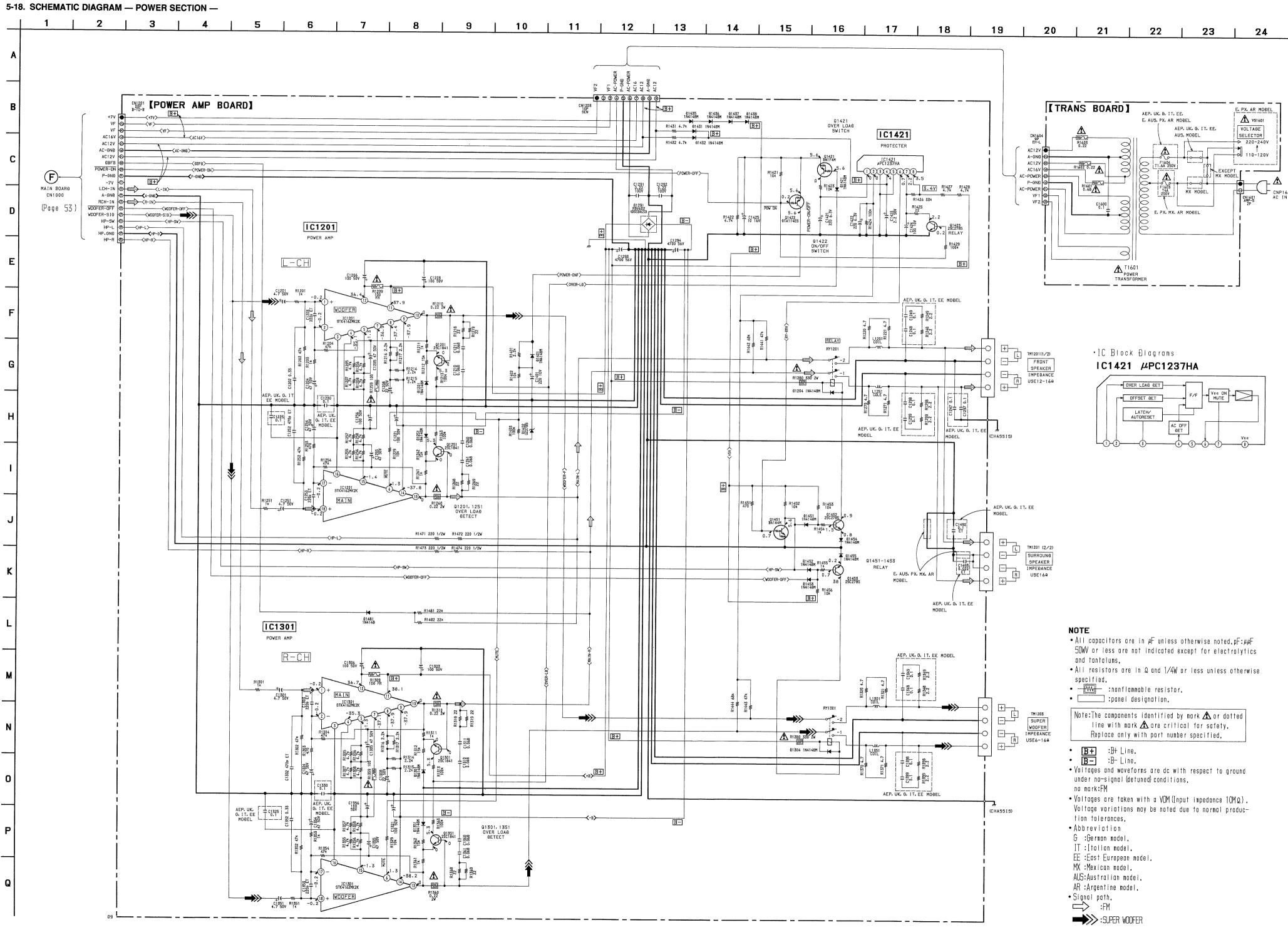
: Pattern from the side which enable seeing.

#### Abbreviation

: German model : Italian model, EE : East European model. MX : Mexican model. AUS: Australian model. AR : Argentine model.



-63-



— 67 —

**-- 66 --**

5-19. SCHEMATIC DIAGRAM — PANEL SECTION —
• See page 77 for IC Pin Function. (IC501) 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 [PANEL BOARD] FLUORESCENT INDICATOR TUBE [CD LED BOARD] HLMF-K305 #LMF-K405 #152 HLMF-K405 #LMF-K305 [TC SW BOARD] R537 R536 R535 R534 R533 15k 6.8k 3.3k 2.2k 1.5k 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 | 16.05 DOLBY BIRECTION OREC II CO SYNCHRO

AEP. UK, G, IT,

EE MODEL II OREC —<LEÐ-B>---[19P] AEP, UK, G. IT, EE MODEL \_\_\_<NOT-TC>\_\_\_ IC501 ASĐ0204-012-3BA OF VF EP (-)
O D+5.0V
OD D. GND
ORESET
ON REY.MG
OREG.GM
OD CLK.MG
OD BATA.GM IC501 (Page 54)

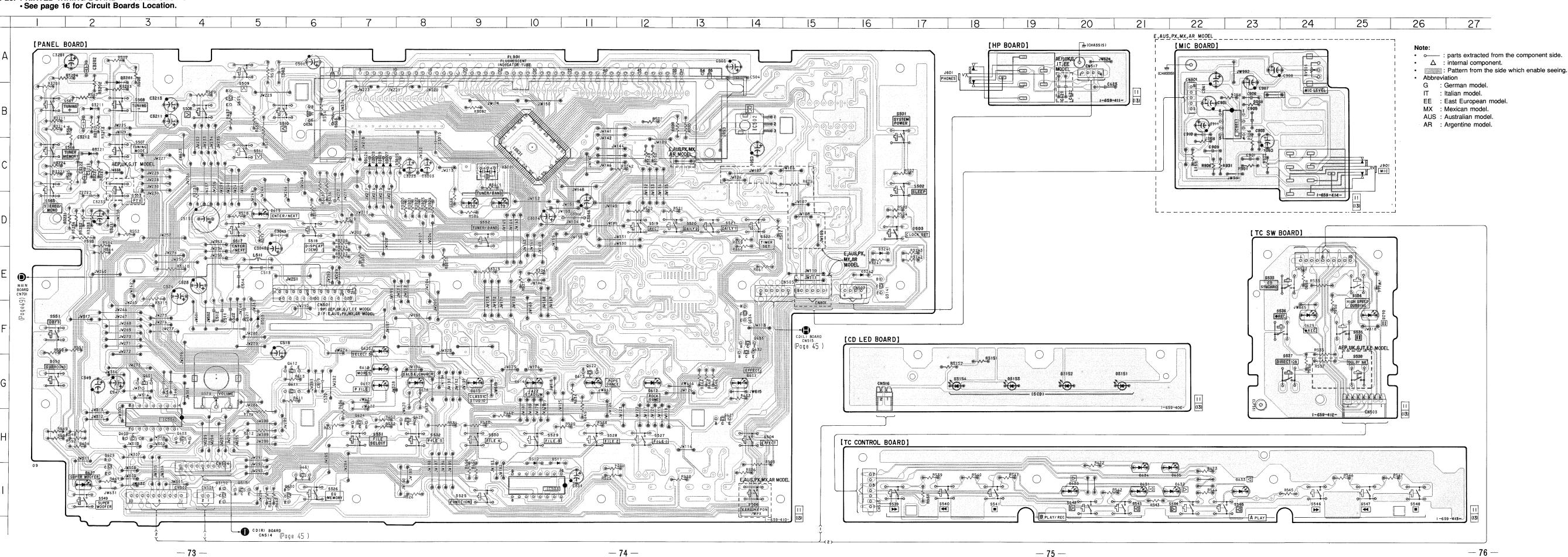
MAIN BOARD

CN701

E. AUS. PX. MX. AR MOBEL 0= BATA.MG
0= SPA.SIG
0= HP-L
0= JACK-SW
0= HP-R
0= GND
0= A+7.5V 100 5.3V [MIC BOARD] EEAS (EEAS (EAS) ( 83204 660k 0+5V) C3202 0122 R3201 0122 R3201 0122 R3201 0122 R3201 0122 R3201 X3001 SERA-USC 4MHz IC901 E. AUS, PX, MX, AR R\$11 R\$10 R\$09 R\$08 R\$07 / R\$06 R\$05 R\$04 R\$03 R\$02 ₹1.5k C3223+ R3222 C3221 50V R3222 C3221 [HP BOARD] R3234\_680k [TC CONTROL BOARD] 03231 C3232 1N4148M 820p EFFECT CLOCK SLEEP SYSTEM POWER 26 1841 8209 C3233+ R3233 R3232 R3231 0-22 ₹70k ₹752 100 FILE 5 FILE 4 FILE 3 FILE 2 FILE 1 EQ FUNCTION MEMORY CO (R) BOARD (G) (Poge 44) R552 R551 R550 R549 R591 IC504 PTY TUNER/BANÐ ÐBFB (SURROUNÐ) (SUPERWOOFER IC503 • All capacitors are in  $\mu F$  unless otherwise noted.pF: $\mu \mu F$ 12345678 50WV or less are not indicated except for electrolytics and tantalums. • All resistors are in  $\Omega$  and 1/4W or less unless otherwise specified. R586 ≱ R588 ≱ TUNING TUNER MEMORY) (STEREO/MONO) \( \triangle \): internal component. • \_\_\_\_:panel designation. • **B+** :B+ Line. SUPER, WOOFER ENTER/NEXT PFILE CLASSIC, STUDIO POPS, DANCE EFFECT • **B-** :B- Line. TUNER/BAND SEE 52233 SEE 52 Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions. SELECT 5 MORE 5 SALSA STUÐIUM no mark: FM Voltages are taken with a VOM ([nput impedance 10MQ). Voltage variations may be noted due to normal production tolerances. ce (L) BOARD (H) (Page 44) Waveforms are taken with a oscilloscope. R636 R635 R634 R633 ≥ 150 ≥ 150 ≥ 150 ≥ 150 Voltage variations may be noted due to normal production tolerances. Abbreviation G :German model. IT :Italian model. EE :East European model. 0625 0624 0623 0622 0621 2SA1175 2SA1175 2SA1175 2SA1175 IC504 AUS:Australian model. MX :Mexican model. AR :Argentine model. • Signal path. ⇒ :MIC

**−** 70 **−**−

### 5-20. PRINTED WIRING BOARD — PANEL SECTION —



**— 75 —** 

Locatio	
Ref. No.	Location
D503 D511 D512 D601 D602 D611 D612 D613 D614 D615 D616 D617 D618 D619 D620 D627 D628 D629 D630 D631 D632 D633 D634 D635 D3026 D3027 D3028 D3027 D3028 D3029 D3151 D3152 D3153 D3154 D3201 D3211 D3221 D3231 D3241 D3242	F-5 H-10 D-9 G-14 G-12 G-11 G-9 G-7 D-5 F-7 I-2 F-25 F-24 I-20 I-21 I-22 I-23 I-21 I-22 C-7 C-7 C-7 C-7 G-20 G-19 G-18 A-3 B-2 C-2 D-2 E-16 E-16
IC501 IC502 IC503 IC504 IC901	C-10 B-14 I-10 H-3 B-23
Q601 Q603 Q605 Q611 Q612 Q621 Q622 Q623 Q624 Q625 Q630 Q631 Q631 Q632 Q633 Q634 Q636 Q3141 Q3151 Q3152	G-3 H-4 H-3 G-6 G-6 H-14 G-11 H-8 H-7 B-5 H-2 I-6 I-6 F-14 F-14 F-14 F-16 I-5 I-5

#### 5-21. IC PIN FUNCTIONS

### • IC501 GRAPHIC CONTROL (ASD0204-012-3BA)

Pin No.	Pin Name	I/O	Function
1	V <sub>DD</sub>	_	+5V
2	LED8	0	LED drive signal output.
3, 4	LED7, 6	0	Not used.
5–9	LED5-1	0	LED drive signal output.
10	RESET	I	Reset signal input.
11	X2	0	7
12	X1	I	X'tal (4 MHz).
13	IC (Vpp)	_	GND
14	XT2	I	Not used.
15	JOG B	I	AMS encoder signal input.
16	V <sub>DD</sub>	_	+5V
17, 18	LED10, 9	0	LED drive signal output.
19	KEY SEL	0	Key select control.
20	VOL B	I	Volume encoder signal input.
21	REQ. GM	0	Reguest signal from/to master control.
22	CLK MG	I	Serial clock input.
23	DATA GM	0	Serial data output.
24	DATA MG	I	Serial data input.
25	AVss	_	GND
26–29	SPEANA 4-1	I	Spectram analizer signal input.
30–33	KEY 4–1	I	Key matrix input.
34	AVDD	_	, sv
35	AVREF	_	
36	VOL A	I	Volume encoder signal input.
37	JOG A	I	AMS encoder signal input.
38	RDY MG	I	RDY signal from master control.
39	SIRCS	I	SIRCS signal input.
40	Vss	_	GND
41	DOR SW	I	CD door open detection input.
42	LED SELECT	0	LED select signal output.
43–45	LED13-11	0	LED drive signal output.
46	VDD		+5V
47, 48	LEDS7, 6	0	Not used.
49, 50	LEDS5, 4	0	Not used. (Pull down)
51–53	LEDS3-1	0	LED drive signal output.
54–78	SEG32-8	0	FL segment signal output.
79	V. LOAD		-25V for FL
80–86	SEG7-1	0	FL segment signal output.
87-100	GR14-1	0	FL grid signal output.

• Abbreviation

FL: FLUORESCENT INDICATOR TUBE

#### • IC701 MASTER CONTROL (TMP87CS64YF)

Pin No.	Pin Name	I/O	Function
1	Vss	-	GND
2	XOUT	0	Wa-1/10 MI-)
3	XIN	I	X'tal (10 MHz).
4	RESET	I	Reset signal input.
5	XOUT	0	White it is a control of the control
6	XIN	ı	X'tal for clock (32.768 kHz)
7	GND (test)	_	GND
8	AC CUT	I	Back up signal input.
9	SUPER WOOFER ON	0	Super woofer ON/OFF control.
10	ST-MUTE ON	0	Mute signal output for tuner.
11	180-A-PLAY	I	
12	180-B-PLAY	1	Tape detection signal input. (Connected to GND)
13	180-B-REC	I	
14	V. DET	I	Voltage detection (Pull up).
15	BD-UP (5CD)	I	Disc table up detect.
16	TRAY CLOSE (ICD)	ı	Not used.
17	ENCODER-1	I	
18	ENCODER-2	I	
19	ENCODER-3	I	
20	OUT SW OPEN	I	Out switch signal input. (Not used)
21	LOAD IN	0	
22	LOAD OUT	0	Loading motor control signal output. (Not used)
23	TBL-L	0	7
24	TBL-R	0	Table motor control signal output.
25	SCOR	I	Sub-code sync signal input.
26	TBL-SENS	1	CD Table sensor signal input.
27	RDS INT	I	RDS data start input.
28	RDS DATA	I	RDS data output.
29	DF LAT	0	Latch signal for digital filter.
30	SENS	I	Table sence signal input.
31	XRST	0	Reset signal output for CD.
32	MG-RDY	ı	RDY signal from graphic control.
33	ADJ	ı	Test mode input.
34	GM-REQ	I	Request signal from graphic control.
35	MG-CLK	0	Clock signal to graphic control.
36	GM-DATA	I	Data input from graphic control.
37	MG-DATA	0	Data output to graphic control.
38	CD-CLK	0	Clock output. Serial bus line.
39	ADJ-2	I	Test mode input.
40	CD-DATA	0	Data output. Serial bus line.

#### • Abbreviation

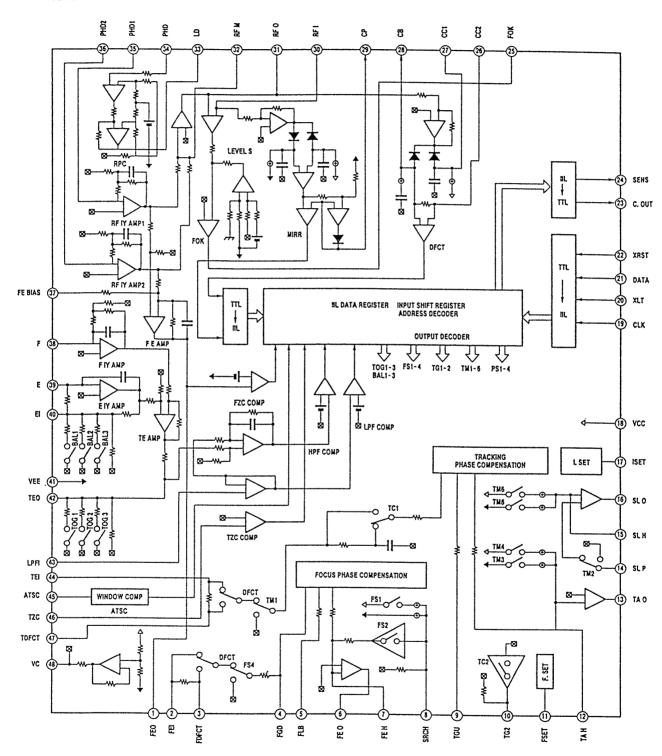
FL: FLUORESCENT INDICATOR TUBE

AUB IN	Pin No.	Pin Name	I/O	Function					
42	41	AUB IN	I						
44   SQ-CLK	42	AUB OUT	0	Audio bus in/output.					
45   SQ-DATA	43	FOCUS SW	0	Focus switching signal output,.					
A6	44	SQ-CLK	0	Subcode Q data read clock output.					
TEST	45	SQ-DATA	I	Subcode Q data input.					
A8	46	X-LAT	0	Latch signal digital signal processor.					
49	47	TEST	I	Test land.					
SND	48	VAREF	I	Analog reference voltage input.					
SO	49	VAss							
SPEC	50	Vss	-	GND					
DESTINATION   1	51	VDD	-	+5V					
DISC SENS   1	52	SPEC	I						
S5	53	DESTINATION	I	Not used.					
Section	54	DISC SENS	I	]]					
S7	55	TC RELAY	0	REC/PB select signal output.					
S8	56	A-SHUT	I						
Control signal input from deck.   Control signal input from deck.	57	B-SHUT	I						
S9	58	B-HALF	I	Control discolling to the					
61         220-B-PLAY         1           62         62427 LAT         O         PLL latch output.           63         K-CON-LAT         O         Not used.           64         VOL LAT (AV)         O         Latch signal for electrical volume. (Not used)           65         FRONT SP RELAY B         O         Not used.           66         REAR SP RELAY C         O         Power on signal output.           67         POWER ON         O         Power on signal output.           68         CD POWER         O         CD power control signal output.           69         PROLOG LAT         O         Not used.           70         MUTE         O         Mute signal for AMP.           71         COM CLK         O         PLL clock output. (PLL, Function, Graphic Equalizer)           72         COM DIN         1         PLL data output. (PLL, Function, Graphic Equalizer)           73         COM DATA         O         PLL data output. (PLL, Function, Graphic Equalizer)           74         K CON ON         O         Not used.           75         LIDDED LED         O         Disc No. LED drive signal output.	59	A-HALF	I	Control signal input from deck.					
62 62427 LAT O PLL latch output. 63 K-CON-LAT O Not used. 64 VOL LAT (AV) O Latch signal for electrical volume. (Not used) 65 FRONT SP RELAY B O REAR SP RELAY C O Not used. 66 REAR SP RELAY C O Power on signal output. 68 CD POWER O CD power control signal output. 69 PROLOG LAT O Not used. 70 MUTE O Mute signal for AMP. 71 COM CLK O PLL clock output. (PLL, Function, Graphic Equalizer) 72 COM DIN I PLL data input. (PLL, Function, Graphic Equalizer) 73 COM DATA O PLL data output. (PLL, Function, Graphic Equalizer) 74 K CON ON O Not used. 75 LIDDED LED O Disc No. LED drive signal output.	60	220-A-PLAY	I	PLL latch output. Not used.					
K-CON-LAT   O Not used.	61	220-B-PLAY	I	1) .					
64 VOL LAT (AV) O Latch signal for electrical volume. (Not used) 65 FRONT SP RELAY B O 66 REAR SP RELAY C O 67 POWER ON O Power on signal output. 68 CD POWER O CD power control signal output. 69 PROLOG LAT O Not used. 70 MUTE O Mute signal for AMP. 71 COM CLK O PLL clock output. (PLL, Function, Graphic Equalizer) 72 COM DIN I PLL data input. (PLL, Function, Graphic Equalizer) 73 COM DATA O PLL data output. (PLL, Function, Graphic Equalizer) 74 K CON ON O Not used. 75 LIDDED LED O Disc No. LED drive signal output.	62	62427 LAT	0	PLL latch output.					
65 FRONT SP RELAY B O 66 REAR SP RELAY C O 67 POWER ON O Power on signal output. 68 CD POWER O CD power control signal output. 69 PROLOG LAT O Not used. 70 MUTE O Mute signal for AMP. 71 COM CLK O PLL clock output. (PLL, Function, Graphic Equalizer) 72 COM DIN I PLL data input. (PLL, Function, Graphic Equalizer) 73 COM DATA O PLL data output. (PLL, Function, Graphic Equalizer) 74 K CON ON O Not used. 75 LIDDED LED O Disc No. LED drive signal output.	63	K-CON-LAT	0	Not used.					
Not used.   Not used.   Not used.   Not used.   Not used.	64	VOL LAT (AV)	0	Latch signal for electrical volume. (Not used)					
66 REAR SP RELAY C O December 10 December 11 December 12 December 12 December 12 December 13 December 14 December 14 December 15 December 16 December 17 December 16 December 17 December 18 December	65	FRONT SP RELAY B	0	Name					
68 CD POWER O CD power control signal output. 69 PROLOG LAT O Not used. 70 MUTE O Mute signal for AMP. 71 COM CLK O PLL clock output. (PLL, Function, Graphic Equalizer) 72 COM DIN I PLL data input. (PLL, Function, Graphic Equalizer) 73 COM DATA O PLL data output. (PLL, Function, Graphic Equalizer) 74 K CON ON O Not used. 75 LIDDED LED O Disc No. LED drive signal output.	66	REAR SP RELAY C	0	Thot used.					
69         PROLOG LAT         O         Not used.           70         MUTE         O         Mute signal for AMP.           71         COM CLK         O         PLL clock output. (PLL, Function, Graphic Equalizer)           72         COM DIN         I         PLL data input. (PLL, Function, Graphic Equalizer)           73         COM DATA         O         PLL data output. (PLL, Function, Graphic Equalizer)           74         K CON ON         O         Not used.           75         LIDDED LED         O         Disc No. LED drive signal output.	67	POWER ON	0	Power on signal output.					
70 MUTE O Mute signal for AMP.  71 COM CLK O PLL clock output. (PLL, Function, Graphic Equalizer)  72 COM DIN I PLL data input. (PLL, Function, Graphic Equalizer)  73 COM DATA O PLL data output. (PLL, Function, Graphic Equalizer)  74 KON ON O Not used.  75 LIDDED LED O Disc No. LED drive signal output.	68	CD POWER	0	CD power control signal output.					
71 COM CLK O PLL clock output. (PLL, Function, Graphic Equalizer)  72 COM DIN I PLL data input. (PLL, Function, Graphic Equalizer)  73 COM DATA O PLL data output. (PLL, Function, Graphic Equalizer)  74 KCON ON O Not used.  75 LIDDED LED O Disc No. LED drive signal output.	69	PROLOG LAT	0	Not used.					
72 COM DIN I PLL data input. (PLL, Function, Graphic Equalizer) 73 COM DATA O PLL data output. (PLL, Function, Graphic Equalizer) 74 KON ON O Not used. 75 LIDDED LED O Disc No. LED drive signal output.	70	MUTE	0	Mute signal for AMP.					
73 COM DATA O PLL data output. (PLL, Function, Graphic Equalizer)  74 KCON ON O Not used.  75 LIDDED LED O Disc No. LED drive signal output.	71	COM CLK	0	PLL clock output. (PLL, Function, Graphic Equalizer)					
74 K CON ON O Not used.  75 LIDDED LED O Disc No. LED drive signal output.	72	COM DIN	I	PLL data input. (PLL, Function, Graphic Equalizer)					
75 LIDDED LED O Disc No. LED drive signal output.	73	COM DATA	0	PLL data output. (PLL, Function, Graphic Equalizer)					
	74	K CON ON	0	Not used.					
76 MDAUDEO O Net used	75	LIDDED LED	0	Disc No. LED drive signal output.					
/O   IVID/VIDEO   O   IVOLUSEO.	76	MD/VIDEO	0	Not used.					
77 DBFB-HIGH O DBFB switching signal output.	77	DBFB-HIGH	0	DBFB switching signal output.					
78 URG STB STDBY I	78	URG STB STDBY	I	N. A. C.					
79 URG SIG ON O Not used.	79	URG SIG ON	0	Not used.					
80 TC A O Deck A, B select output.	80	TC A	0	Deck A, B select output.					

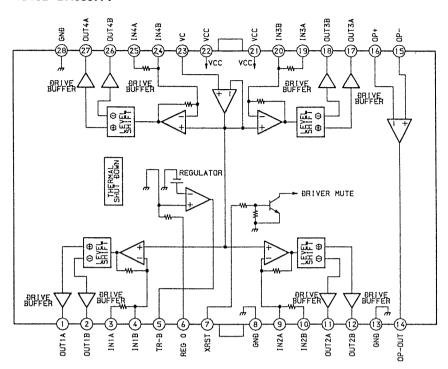
Pin No.	Pin Name	I/O	Function
81	NORM	0	NORMAL/HIGH control signal output.
82	BIAS OFF	0	Bias oscillation output.
83	REC MUTE	0	Mute output.
84	NR OFF	0	Dolby ON/OFF signal output.
85	PB	0	REC/PB control signal output.
86	PASS. AMP/DOLBY	0	Dolby switching signal output.
87	LINE MUTE ON	0	Mute signal output for deck.
88	CAP. M-HIGH	0	Capstan motor control signal output.
89	A-TRG	0	Trigger motor control signal output.
90	B-TRG	0	Trigger motor control signar output.
91	TRG LOW	0	Trigger motor high/low control signal output.
92	CAP M ON	0	Capstan motor ON/OFF control signal output.
93	STEREO	I	Stereo detection signal from tuner.
94	TUNED	I	Tuned detection signal from tuner.
95	ST-CE	0	Latch signal output for tuner.
96	DELAY SEL MIC	0	Not used.
97	DELAY ON	0	ECHO delay ON/OFF control signal output.
98	DELAY LEVEL A	0	ECHO delay level control signal output.
99	DELAY LEVEL B	0	Let to delay level control signal output.
100	VDD	_	+5V

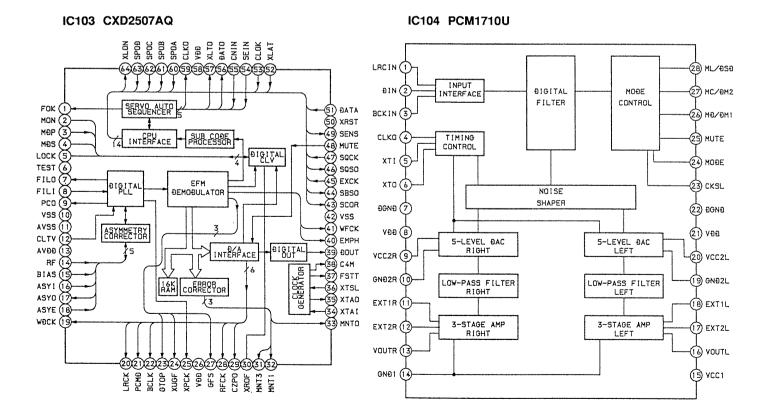
#### 5-22. IC BLOCK DIAGRAMS — CD SECTION —

#### IC101 CXA1782BQ



#### IC102 BA6397FP





# SECTION 6 EXPLODED VIEWS

#### NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

 Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

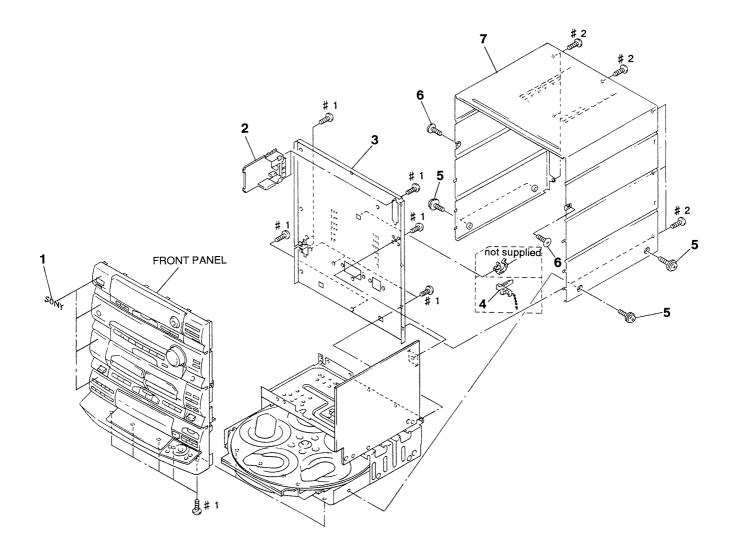
Abbreviation

G : German model
IT : Italian model
EE : East European model
MX : Mexican model
AUS : Australian model
AR : Argentine model

The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety.

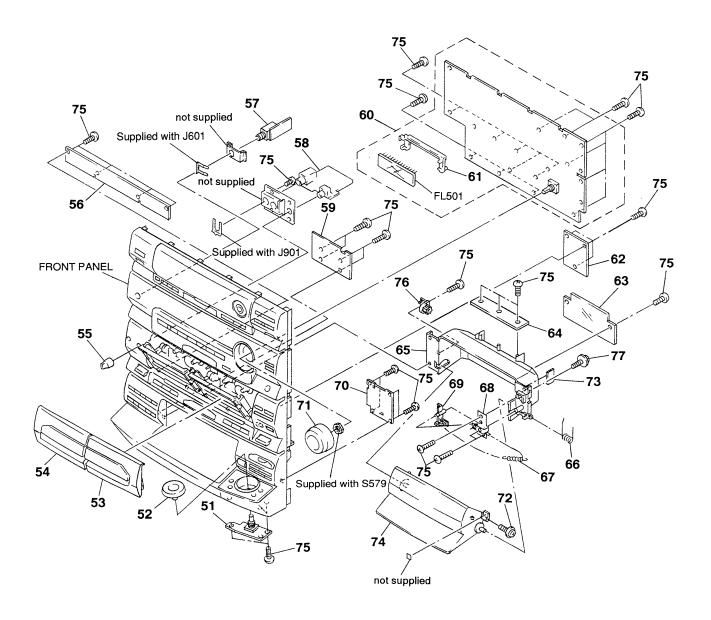
Replace only with part number specified.

#### 6-1. CASE AND BACK PANEL SECTION



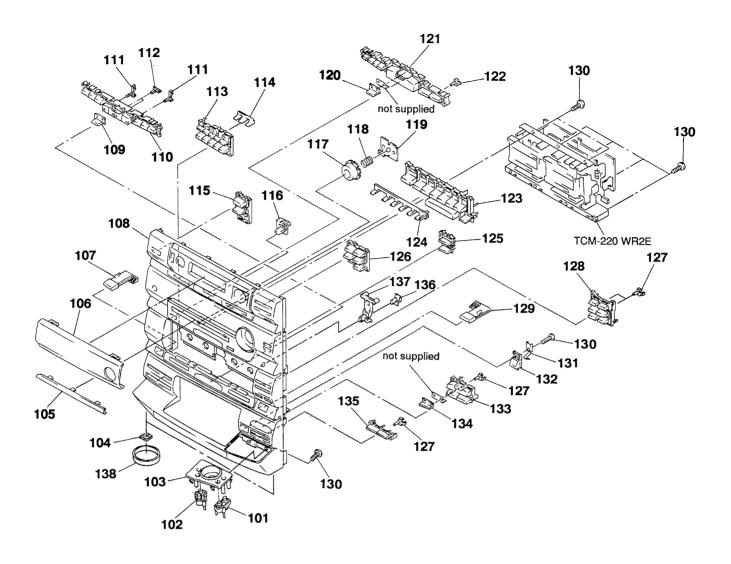
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1 * 2 * 2 * 2 * 2 * 3 * 3 * 3 * 3 * 3 * 3	A-4303-502-A A-4303-503-A A-4303-504-A A-4303-513-A 4-978-191-21 4-978-191-31 4-978-191-41 4-978-191-51	PANEL, BACK (G) PANEL, BACK (IT)	MX, AR)	**33333 **567	4-978-192-11 4-978-192-21 4-978-192-31 4-978-192-41 4-956-370-12 4-929-973-01	PANEL, BACK (E) PANEL, BACK (AR) PANEL, BACK (AUS) PANEL, BACK (PX) PANEL, BACK (MX)  BAND, PLUG FIXED (UK, AUS) SCREW (CASE, 3 POINT) SCREW (CASE 3 TP2) CASE	

#### 6-2. PANEL BOARD SECTION



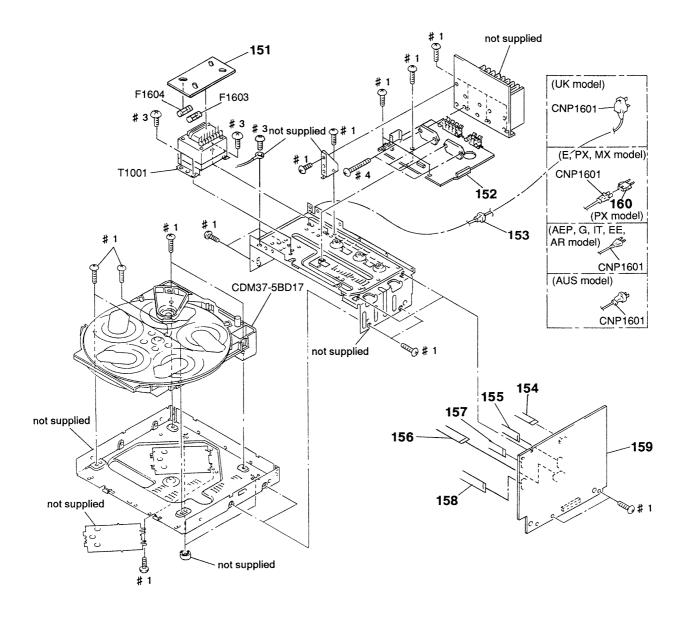
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 51 52 53 54 55	4-978-154-01 X-4946-636-1 X-4946-635-1	CD JOG BOARD KNOB (DISC) LID (B) ASSY, CASSETTE LID (A) ASSY, CASSETTE KNOB (MIC) (E, AUS, PX, MX, AR)		65 66 67 * 68 69	4-978-170-01	SPRING, TORSION SPRING, TENSION BRACKET (OPEN)	
* 56 * 57 * 58 * 59 * 60	1-659-411-11 1-659-414-11 1-659-404-11	TC CONTROL BOARD HP BOARD MIC BOARD (E, AUS, PX, MX, AR) CD (L) BOARD PANEL BOARD, COMPLETE (AEP, UK, G, IT	r, ee)	* 70 71 72 * 73 74	4-978-142-01 4-909-982-11	SCREW, TAPPING DOOR SW BOARD	
* 60 61 * 62 63 * 64	4-971-014-11 1-659-412-11 4-980-060-01	PANEL BOARD, COMPLETE (E, AUS, PX, M) HOLDER, FL TUBE TC SW BOARD INDICATOR (COVER) CD LED BOARD	X, AR)	75 76 77 FL501	3-354-963-21 4-957-577-01	SCREW (2.6X8), +BVTP DAMPER SCREW PTP WH (2.6X8) INDICATOR TUBU, FLUORESCENT	

#### 6-3. FRONT PANEL SECTION



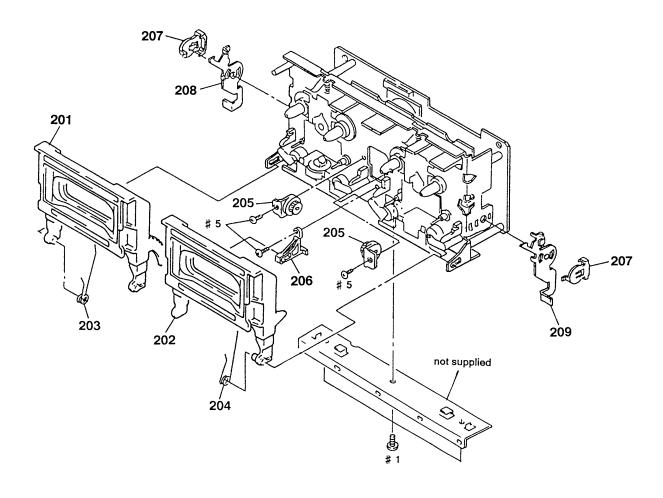
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101 102 103	4-978-712-01	BUTTON (PROGRAM) BUTTON (SHUFFLE) PLATE, ORNAMENTAL		121 122 123		BUTTON (BAND) INDICATOR (ENTER) BUTTON (EU)	
104 105	4-948-236-01	CUSHION (107) DISPLAY (TA)		124		INDICATOR (SE5)	
106		DISPLAY (ST) (E, AUS, PX, EE, MX, AR)		125 126	4-978-120-01	BUTTON (DBFB) BUTTON (TUNING) (E, AUS, PX, MX, AR)	
106 107 108	4-978-146-01	DISPLAY (ST) (AEP, UK, G, IT) BUTTON (EJECT-L) PANEL, FRONT (AEP, UK, G, IT, EE)		126 127		BUTTON (TUNING) (AEP, UK, G, IT, EE) INDICATOR (PAUSE)	
108	4-978-115-21	PANEL, FRONT (E, AUS, PX, MX, AR)		128 128	4-978-144-11	BUTTON (DUBBING) (AEP, UK, G, IT, EE) BUTTON (DUBBING) (E, AUS, PX, MX, AR)	
109 110 111	4-978-145-01	INDICATOR (TC) BUTTON (TC) INDICATOR (REV)		129 130 131	4-951-620-01	BUTTON (EJECT-R) SCREW (2.6X8), +BVTP SPRING (OPEN)	
112 113	4-978-158-01	INDICATOR (FWD) BUTTON (DISC 5)		101		(AEP, UK, E, AUS, PX, G, IT	, EE, MX)
114 115		INDICATOR (CLIP) BUTTON (POWER)		132 133 134	4-978-128-01	BUTTON (OPEN) BUTTON (PLAY) INDICATOR (PLAY)	
116 117	4-978-151-01	BUTTON (PON) (E, AUS, PX, MX, AR) BUTTON (CURSOR)		135 136	4-978-152-01	BUTTON (AUTO) INDICATOR (SW)	
118		SPRING, COMPRESSION		137		BUTTON (SUPER-W)	
119 120		COVER (CURSOR) INDICATOR (BAND)		138	4-921-918-11	PLATE, ORNAMENTAL	

#### 6-4. CHASSIS SECTION



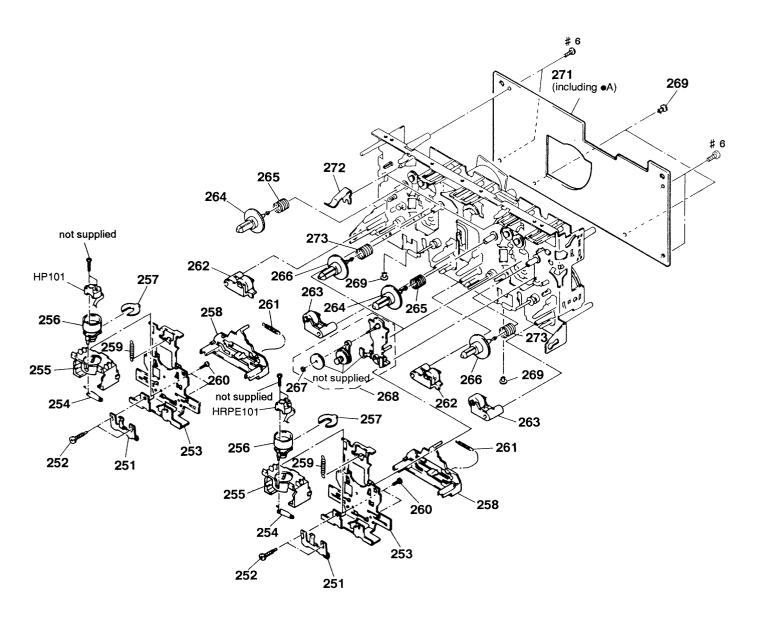
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 151 * 152	1-659-218-11 A-4389-210-A	TRANS BOARD POWER AMP BOARD, COMPLETE (AEP, UK, G	. IT. EE)	158 * 159 * 159	A-4378-954-A	WIRE(FLAT TYPE) (21 CORE) (E, AUS, PX, MAIN BOARD, COMPLETE (AEP, UK, G, IT) MAIN BOARD, COMPLETE (E, AUS, PX, MX,	)
* 152	A-4389-212-A	POWER AMP BOARD, COMPLETE (E. AUS. PX	, ,	* 159		MAIN BOARD, COMPLETE (EE)	nit)
153	3-703-244-00	BUSHING (FBS001), CORD (AEP, UK, AUS, G, IT	, ,	160 ↑CNP160	1-569-007-11 11-558-943-41	ADAPTER, CONVERSION 2P (PX) CORD, POWER (E. PX. MX)	
153		BUSHING (S) (FBS002), CORD (E, PX, M	X) .	<b>⚠</b> CNP160	11-575-651-21 11-696-845-11	CORD, POWER (AEP, G, IT, EE, AR)	
154 154		WIRE (FLAT TYPE) (13 CORE) (E, AUS, PX WIRE (FLAT TYPE) (15 CORE) (AEP, UK, G				CORD, POWER (UK)	
155 156	1-776-265-11	WIRE(FLAT TYPE) (11 CORE) WIRE(FLAT TYPE) (19 CORE)		<b></b> ↑F1603 ↑↑F1604	1-532-350-00 1-532-259-00	FUSE (T4A, 250V)(E, PX, MX, AR) FUSE (T1.6A, 250V)	
157		WIRE(FLAT TYPE) (21 CORE)				(AEP, UK, E, AUS, PX, G, IT, TRANSFORMER, POWER (AEP, UK, G, IT, EF	EE, AR)
158	1-773-119-11	WIRE(FLAT TYPE) (19 CORE) (AEP, UK, G	IT, EE)	<b>⚠</b> T1001	1-429-345-11	TRANSFORMER, POWER (E, AUS, PX, MX, AF	ί)

### 6-5. TC MECHANISM SECTION 1 (TCM-220 WR2E)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201 202 203 204 205	X-4943-775-1 4-959-231-11	HOLDER (L) ASSY, CASSETTE HOLDER (R) ASSY, CASSETTE SPRING (L), TORSION SPRING (R), TORSION DAMPER		* 208	3-354-953-01	FULCRUM, HOLDER JOINT (LOCK LEVER) LEVER (LOCK LEVER L) LEVER (LOCK LEVER R)	

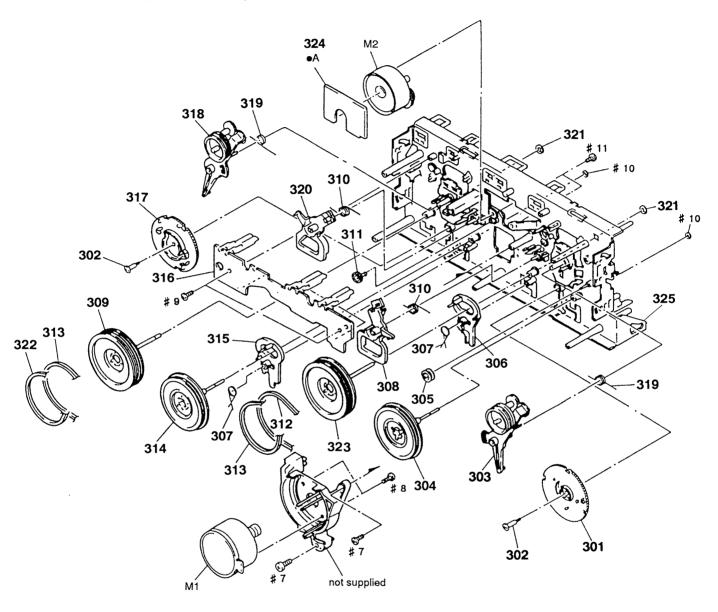
### 6-6. TC MECHANISM SECTION 2 (TCM-220 WR2E)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251 252 * 253	3-919-684-01 X-3367-584-2	SPRING, AZIMUTH ADJUSTMENT SCREW, AZIMUTH ADJUSTMENT SLIDER (HEAD) ASSY		263 264 265	3-908-613-01	PINCH LEVER (FWD) ASSY GEAR (S), REEL SPRING, COMPRESSION	
254 255	3-908-558-02	SPRING, HEAD TOGGLE FITTING BLOCK, HEAD		266 267	3-669-465-01	REEL (T) ASSY WASHER (1.5), STOPPER	
256 * 257 258 259	3-908-559-01 3-908-555-01	ROTARY BLOCK, HEAD STOPPER, AZIMUTH SLIDER (REV SLIDER) SPRING, TENSION		268 269 * 271	X-3370-173-1 3-911-116-21 A-2007-435-A		
260		SCREW (P2X6) (B TIGHT)		272 273		DETENT, HALF SPRING, COMPRESSION	
261 262		SPRING, TENSION PINCH LEVER (REV) ASSY			1-500-093-11	HEAD, MAGNETIC (PLAYBACK) HEAD, MAGNETIC (REC/PB/ERASE)	

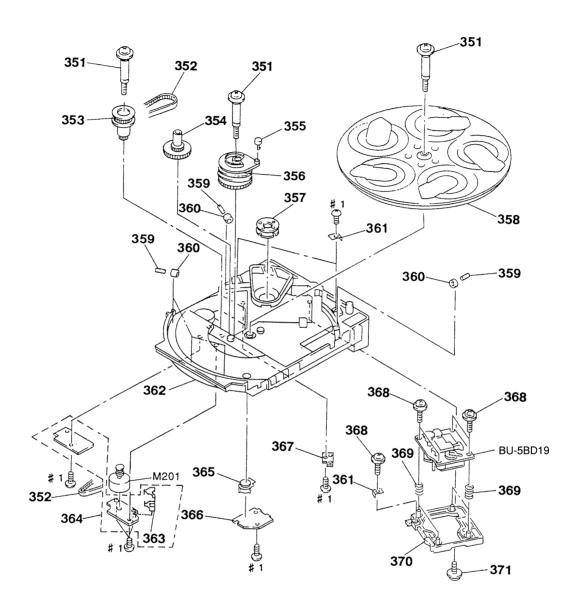
## 6-7. TC MECHANISM SECTION 3 (TCM-220 WR2E)

#### ● A: MOTOR board (Supplied with MD board)



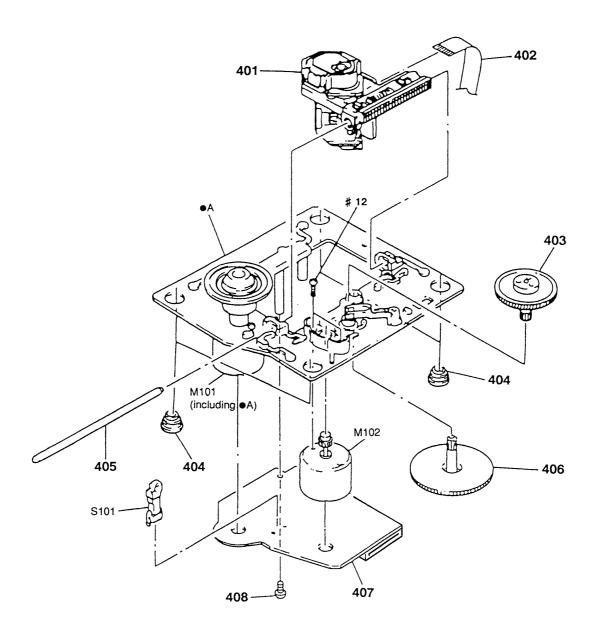
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
301 302	3-908-597-01 3-908-608-11			315	3-908-600-01	LEVER (REV-B)	
303 304	X-3367-590-2	ARM (A) ASSY, FR FLYWHEEL (AR) ASSY		* 316 317	1-650-669-11 3-908-598-01	LEAF SWITCH BOARD	
305		PULLEY, TENSION		318 319	X-3369-849-2	ARM (B) ASSY, FR SPRING (FR), TORSION	
306 307		LEVER (REV-A) SPRING (REV LEVER), TORSION		320		LEVER (TRIGGER B)	
308 309	3-908-603-01	LEVER (TRIGGER A) FLYWHEEL (BF) ASSY		321 322	3-911-115-01 3-917-176-11	WASHER, STOPPER	
310		SPRING (TRIGGER), TORSION		323 324	X-3370-172-1	FLYWHEEL (AF) ASSY MD BOARD, COMPLETE	
311 312	3-908-609-01 3-913-845-11	GEAR, TRIGGER RELT (A)		325		CHASSIS ASSY, MECHANICAL	
313 314	3-913-846-11			M1 M2		MOTOR ASSY (CAPSTAN)	
014	A 0010 111 1	TOT TOTAL (DIC) NAST		1712	A-2004-410-A	MOTOR ASSY (TRIGGER)	

#### 6-8. CD MECHANISM SECTION (CDM37-5BD19)



Ref. No.	Part No.	<u>Description</u>	Remark	Ref. No.	Part No.	Description	Remark
351 352 353 354 355	A-4660-978-A 4-978-421-01	BELT (TIMING) GEAR (PULLEY) ASSY		* 362 * 363 * 364 365			
356 * 357 358 359 360 * 361	4-978-420-01 1-452-538-11 4-978-417-01	CAM (HOLDER) MAGNET TABLE, DISC SHAFT (ROLLER) ROLLER ASSY		* 366 * 367 368 369 * 370 371 M201	4-933-134-01 4-958-593-01 4-978-419-01 4-917-583-71	LED BOARD TABLE SENSOR BOARD SCREW (+PTPWH M2. 6X6) SPRING (BU), COMPRESSION HOLDER (BU-5) BRACKET, YOKE MOTOR ASSY (TABLE)	

#### 6-9. BASE UNIT SECTION (BU-5BD19)



The components identified by mark  $\hat{\Lambda}$  or dotted line with mark  $\hat{\Lambda}$  are critical for safety.

Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101 402 403 404 405 406	1-769-069-11 4-917-567-01 4-951-940-01 4-917-565-01	INSULATOR (BU)			4-951-620-01 X-4917-523-4 X-4917-504-1	BD BOARD, COMPLETE SCREW (2.6X8), +BVTP MOTOR ASSY (SPINDLE) MOTOR ASSY (SLED) SWITCH, LEAF (LIMIT)	



## SECTION 7 ELECTRICAL PARTS LIST

NOTE:

The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety.

Replace only with part number specified.

When indicating parts by reference number, please include the board name

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
   All resistors are in ohms
   METAL: Metal-film resistor
   METAL OXIDE: Metal Oxide-film resistor

F: nonflammable

- SEMICONDUCTORS
  In each case, u: μ , for example:
  uA...: μ A..., uPA...: μ PA..., uPB...: μ PB...,
  uPC...: μ PC..., uPD...: μ PD...
- CAPACITORS uF :  $\mu$ F
- COILS uH : μH
- Abbreviation

G : German model
IT : Italian model
EE : East European model
MX : Mexican model
AUS : Australian model
AR : Argentine model

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
*	A-4673-402-A	BD BOARD, COMPL	ETE			C141	1-163-038-91	CERAMIC CHIP	0. 1uF		25V
		*******				C142		CERAMIC CHIP	0. 1uF		25V
		< CAPACITOR >				C145	1-135-201-11	TANTALUM CHIP	10uF	20%	4 V
						C146		TANTALUM CHIP	10uF	20%	4 V
C101	1-126-607-11		47uF	20%	4V	C147		CERAMIC CHIP	0.001uF	<b>5%</b>	50V
C102		CERAMIC CHIP	0.001uF	5%	50V	C148		CERAMIC CHIP	0.001uF	5%	50V
C103		CERAMIC CHIP	luF		16V	C149	1-164-346-11	CERAMIC CHIP	luF		16V
C105		CERAMIC CHIP	0. 1uF	-a/	25V	0150		manmar ourn	10 B	000	0.011
C106	1-164-695-11	CERAMIC CHIP	0. 0022uF	5%	50V	C153		TANTAL. CHIP	10uF	20%	6. 3V
C107	1 104 005 11	CEDANIC CUID	0 0000.15	5%	rov	C154	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C107 C108		CERAMIC CHIP	0. 0022uF 0. 01uF	<b>⊃</b> 76	50V 50V			< CONNECTOR >			
C108		CERAMIC CHIP	0. 01uF		50 <b>V</b>			CONNECTOR >			
C109		CERAMIC CHIP	0. 01ur 0. 033uF	10%	25V	CNIIIOI	1-770-014-11	CONNECTOR, FFC/	TEPC 16P		
C110		CERAMIC CHIP	0. 035ur 0. 1uF	10/0	25 <b>V</b>			CONNECTOR, FFC/			
CIII	1 100 000 01	CERAMIC CITT	o. rui		201	C110102	1 110 013 11	commercial, 110/	110 131		
C112	1-163-038-91	CERAMIC CHIP	0. 1uF		25V			< IC >			
C113		CERAMIC CHIP	0. 0022uF	5%	50V						
C114		CERAMIC CHIP	0. 47uF	0.0	25V	IC101	8-752-069-56	IC CXA1782BQ			
C115	1-126-607-11		47uF	20%	4V		8-759-291-06	•			
C116		CERAMIC CHIP	0.0039uF	10%	50V		8-752-372-94				
							8-759-185-29		}		
C117	1-164-005-11	CERAMIC CHIP	0. 47uF		25V						
C118	1-107-823-11	CERAMIC CHIP	0. 47uF	10%	16V			< MOTOR >			
C119	1-163-038-91	CERAMIC CHIP	0. 1uF		25V						
C120	1-135-201-11	TANTALUM CHIP	10uF	20%	4 V	M101	X-4917-523-4	MOTOR ASSY (SPI	NDLE)		
C121	1-163-038-91	CERAMIC CHIP	0. 1uF		25V	M102	X-4917-504-1	MOTOR ASSY (SLE	D)		
C122		CERAMIC CHIP	0. 01uF		50V			< TRANSISTOR >			
C123		CERAMIC CHIP	0. 1uF		25V						
C124	1-126-607-11		47uF	20%	4V	Q101	8-729-010-08		B710-R		
C125		CERAMIC CHIP	0. 01uF		50V	Q102	8-729-424-08		2111		
C126	1-163-038-91	CERAMIC CHIP	0. 1uF		25V	Q103	8-729-421-22	TRANSISTOR UN	2211		
C127	1 164 605 11	CEDANIC CUID	0. 0022uF	re⁄	EOV			/ DECICEOD \			
C127		CERAMIC CHIP	560PF	5% 5%	50V 50V			< RESISTOR >			
C128 C129		CERAMIC CHIP	0. luF	3/6	25V	R102	1-216-001-00	METAL CUID	10 59	6 1/1	ΛW
C129		CERAMIC CHIP	0. 33uF		25V 25V	R102	1-216-001-00		16 57		
C130		CERAMIC CHIP	0. 33ur 0. 1uF		25V 25V	R104	1-216-049-91		100K 59		
C131	1-103-036-91	CERAMIC CHII	0. Tur		231	R104	1-216-097-91		68K 59		
C132	1-163-037-11	CERAMIC CHIP	0. 022uF	10%	25V	R105	1-216-093-00		68K 59		
C132		CERAMIC CHIP	0. 022ti	5%	50V	KIOO	1 210 033 00	METAL CITT	00N 3/	1/1	O #
C134		CERAMIC CHIP	luF	J/4	16V	R107	1-216-093-00	METAL CHIP	68K 59	6 1/10	∩₩
C134		CERAMIC CHIP	100PF	5%	50V	R107	1-216-093-00		68K 59	•	
C136		CERAMIC CHIP	0. 47uF	070	25V	R109	1-216-093-00		100K 59		
0100	1 101 000 11	CERTAIN CHIL	o, mu			R112	1-216-083-00		27K 59		
C137	1-164-232-11	CERAMIC CHIP	0. 01uF		50V	R113	1-216-083-00		27K 59		
C139		CERAMIC CHIP	22PF	5%	50V		_ 310 000 00			, -,	·
C140		CERAMIC CHIP	22PF	5%	50V	R114	1-216-101-00	METAL CHIP	150K 59	6 1/10	OW
					· ·			•		-, -	

Ref. No.	Part No.	Description			Rem	mark   F	Ref. No.	Part No.	Descrip	tion				Remark
R115	1-216-101-00	METAL CHIP	150K	5%	1/10W	ł			< SWITC	н >				
R116	1-216-061-00		3. 3K		1/10W	-			\ SHIIC					
R117	1-216-069-00		6.8K		1/10₩		S101	1-572-085-11	SWITCH,	LEAF (L	IMIT)			
R118	1-216-049-91	METAL GLAZE	1K	5%	1/10W	1								
	1 010 000 01	MDTH GLIGD	47777	F0/	1 /100				< VIBRA	TOR >				
R119 R120	1-216-089-91 1-216-089-91		47K 47K	5% 5%	1/10\ 1/10\		X101	1-579-280-11	VIDDATO	D CDVCT	AT (16	02441	u-)	
R120	1-216-089-91		510K		1/10W		VIOI	1-3/9-200-11	VIDRATO	n, Chisi	ML (10	. 9344W	nz)	
R122	1-216-097-91		100K	5%	1/10W		******	*********	******	******	*****	*****	*****	*****
R123	1-216-099-00		120K		1/10W									
						1	*	1-659-404-11	CD (L)	BOARD				
R124	1-216-091-00		56K	5%	1/10W	1			******	****				
R125	1-216-069-00		6. 8K		1/10W	1			4 00MM	OTOD \				
R126 R127	1-216-063-91 1-216-089-91		3. 9K 47K	5% 5%	1/10W 1/10W				< CONNE	CIOR >				
R128	1-216-105-91		220K		1/10W		* CN515	1-568-944-11	PIN CO	NNECTOR	6P			
11120	1 210 100 01	MBTIND OBINDE	22011	070	1/ 1011		. 0.1010	1 000 011 11	1111, 00	WILDOT OIL	01			
R129	1-216-049-91	METAL GLAZE	1K	5%	1/10W				< DIODE	>				
R130	1-216-079-00		18K	5%	1/10W								_	
R131	1-216-079-00		18K	5%	1/10W		D638	8-719-057-09		LNJ801L			-	
R132 R133	1-216-061-00		3. 3K 3. 3K		1/10W 1/10W		D639 D640	8-719-057-09 8-719-057-09		LNJ801L				
итээ	1-216-061-00	MEIAL CHIP	3. 3h	5%	1/10#		D040	0-119-051-09	DIODE	LNJ801L	rvja (	CLIP A	,	
R134	1-216-065-00	METAL CHIP	4.7K	5%	1/10W				< RESIS	TOR >				
R135	1-216-065-00		4.7K		1/10W									
R136	1-216-073-00	METAL CHIP	10K	5%	1/10W		R568	1-247-815-91			220	5%	1/4₩	
R137	1-216-065-00		4.7K		1/10W		R569	1-249-411-11			330	5%	1/4W	
R138	1-216-049-91	METAL GLAZE	1K	5%	1/10₩		R570	1-249-413-11			470	5%	1/4W	
R139	1-216-033-00	METAL CHID	220	5%	1/10W		R571 R572	1-249-415-11 1-249-417-11			680 1K	5% 5%	1/4W 1/4W	
R140	1-216-031-00		22K	5%	1/10W		K312	1-249-417-11	CARDON		11/	∂ <i>1</i> 0	1/4#	r
R141	1-216-061-00		3. 3K		1/10W	ĺ	R573	1-249-419-11	CARBON		1.5K	5%	1/4W	F
R142	1-216-061-00	METAL CHIP	3. 3K	5%	1/10W		R574	1-249-421-11	CARBON		2.2K	5%	1/4W	
R143	1-216-121-91	METAL GLAZE	1M	5%	1/10W		R575	1-249-423-11			3. 3K	5%	1/4W	
D1 4 4	1 010 070 00	METAL CILLE	1027	rov.	1 /100	ŀ	R576	1-249-427-11			6. 8K	5%	1/4W	F
R144 R145	1-216-073-00 1-216-097-91		10K 100K	5% 5%	1/10W 1/10W		R577	1-249-431-11	CARBON		15K	5%	1/4W	
R145	1-216-097-91		100K		1/10W		R682	1-249-407-11	CARBON		150	5%	1/4W	
R147	1-216-049-91		1K	5%	1/10W		R683	1-249-407-11			150	5%	1/4W	
R148	1-216-049-91	METAL GLAZE	1K	5%	1/10W		R684	1-249-407-11	CARBON		150	5%	1/4W	
R149	1-216-049-91		1K	5%	1/10W				< SWITCH	H >				
R150	1-216-037-00 1-216-037-00		330	5% 5%	1/10W 1/10W		SEGO	1	CWITCU	TACTILE	(CI ID	C)		
R151 R152	1-216-037-00		330 330	5% 5%	1/10W 1/10W		S569 S570	1-554-303-21 1-554-303-21						
R153	1-216-082-00		24K	5%	1/10W		S571	1-554-303-21						
					.,		S572	1-554-303-21					C CLIP	)
R154	1-216-065-00		4.7K		1/10W		S573	1-554-303-21	SWITCH,	TACTILE	(PLAY	MUSIC	CLIP)	
R156	1-216-085-00		33K	5%	1/10W						/m = = -			
R157	1-216-069-00		6. 8K		1/10W		S574	1-554-303-21						
R158	1-216-001-00	MEIAL CHIP	10	5%	1/10W		S575 S576	1-554-303-21 1-554-303-21						*
		< VARIABLE RESI	STOR >				S577	1-554-303-21						
		THE PART OF THE PA					S578	1-554-303-21						-
		RES, ADJ, METAL							•				_	•
		RES, ADJ, METAL				1	******	******	******	******	*****	*****	*****	*****
RV103	1-241-396-11	RES, ADJ, METAL	GLAZE	22K										

### CD (R) CD JOG CD LED CD MOTOR

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
*	1-659-409-11	CD (R) BOARD *******					1-554-303-21	SWITCH, TACTILE SWITCH, TACTILE SWITCH, TACTILE	(SHUFFLE)		
		< CONNECTOR >						******			
CN514	1-568-936-11	PIN, CONNECTOR	9P						******	*****	*****
		< DIODE >				*	1-059-400-11	CD LED BOARD			
D603 D604	8-719-058-03 8-719-058-03		E-TP15 (▷ E-TP15 (▷					< CONNECTOR >			
D636	8-719-058-17	DIODE LNJ401N	PYJA (II)	•		CN516	1-506-481-11	PIN, CONNECTOR	2P		
D637	8-719-057-09	DIODE LNJ801L	PDJA (AUTO	) PLAY)				< DIODE >			
		< RESISTOR >				D3151	8-719-057-40	DIODE HLMF-K3	05-2UL (50	CD)	
R553 R554	1-249-411-11 1-249-413-11		330 5% 470 5%	1/4W 1/4W		1	8-719-058-19 8-719-058-19	DIODE HLMF-K4	05-2UL (50 05-2UL (50	•	
R555	1-249-415-11	CARBON	680 5%	1/4W	F			DIODE HLMF-K3			
R556 R557	1-249-417-11 1-249-419-11		1K 5% 1.5K 5%	1/4W 1/4W				< RESISTOR >			
R675	1-247-807-31		100 5%	1/4₩		R3151	1-249-412-11	CARBON	390 5%	1/4W	F
R676 R678	1-249-407-11 1-247-815-91		150 5% 220 5%	1/4W 1/4W		*****	******	******	******	******	*****
R680	1-247-815-91	CARBON	220 5%	1/4W		*	A-4673-765-A	CD MOTOR BOARD,	COMPLETE		
		< SWITCH >				-		*********	******		
S554		SWITCH, TACTILE				*	4-980-385-01	HOLDER (SW)			
S555 S556	1-554-303-21	SWITCH, TACTILE SWITCH, TACTILE						< CAPACITOR >			
S557 S558		SWITCH, TACTILE SWITCH, TACTILE				C201	1-124-907-11	ELECT	10uF	20%	50 <b>V</b>
******		******			******	C202 C203	1-162-306-11 1-124-907-11		0.01uF 10uF	30% 20%	16V 50V
			***********			0200	1 124 007 11		Tour	2070	301
*	1-059-405-11	CD JOG BOARD ********						< CONNECTOR >			
		< CAPACITOR >				* CN201	1-568-947-11	PIN, CONNECTOR S	9P		
C515	1-162-306-11	CERAMIC	0. 01uF	30%	16V			< IC >			
C516	1-162-306-11	CERAMIC	0.01uF	30%	16V	IC201	8-759-365-94	IC TA8409S			
		< CONNECTOR >						< COIT >			
* CN518	1-568-942-11	PIN, CONNECTOR	4P			L201	1-408-117-00	INDUCTOR 10uH			
		< RESISTOR >						< MOTOR >			
R558 R559	1-249-421-11 1-249-423-11		2. 2K 5% 3. 3K 5%	1/4W		M201	A-4660-977-A	MOTOR ASSY (TABI	Æ)		
R560	1-249-427-11	CARBON	6.8K 5%	1/4W 1/4W				< RESISTOR >			
R561	1-249-431-11		15K 5%	1/4W		R205	1-249-427-11		6. 8K 5%		
		< SWITCH >				R206	1-249-425-11	CARBON	4. 7K 5%	1/4W	F
S502 S559		ENCODER, ROTARY SWITCH, TACTILE	•								

### CD MOTOR DOOR SW HP LEAF SWITCH LED MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
		< SWITCH >						< SWITCH >			
		SWITCH, PUSH (1	, ,	•	******	S1002 S1003	1-692-832-11 1-572-248-11	SWITCH, PUSH ( SWITCH, PUSH ( SWITCH, LEAF ( SWITCH, LEAF (	1 KEY)(B PL A HALF)		
*	1-659-408-11	DOOR SW BOARD				S1005	1-571-281-21	SWITCH, LEAF (	REC A)		
		< CAPACITOR >				S1008	1-571-281-21	SWITCH, LEAF (I SWITCH, LEAF (I SWITCH, LEAF (I	B Cr02)		
C591	1-164-159-11	CERAMIC	0. 1uF		50V			**********	•	******	
		< CONNECTOR >				*			*****	*****	*****
* CN519	1-568-940-11	PIN, CONNECTOR	2P			*	1-659-059-12	*******			
		< SWITCH >						< DIODE >			
S591	1-572-126-11	SWITCH, PUSH (1	KEY) (	OPEN)		D201	8-719-032-98	DIODE SEL582	OA (DISC No	.)	
******	******	*******	******	*******	******			< TRANSISTOR >			
*	1-659-411-11	HP BOARD ******				Q201	8-729-119-78	TRANSISTOR 2	SC2785-HFE		
		< CAPACITOR >						< RESISTOR >			
C621	1-164-159-21		0. 1uF		50 <b>V</b>	R201 R202	1-247-863-91 1-249-411-11		22K 5% 330 5%	1/4W 1/4W	
C622	1-164-159-21		0. 1uF	(AEP, UK,	G, IT, EE)	R203	1-249-437-11		47K 5%	1/4W	
			*	(AEP, UK,	50V G, IT, EE)	*****	******	******	******	*****	******
C623	1-164-159-21		0. 1uF		50 <b>V</b>	*	A-4378-954-A	MAIN BOARD, CO			•
		< JACK >						********			
J601	1-569-113-11	JACK, LARGE TYP	E (PHON.	ES)		*	A-4378-962-A	MAIN BOARD, CO			, ,
******	*********	*********	******	******	******	*	A-4390-172-A	MAIN BOARD, CO	MPLETE (EE)		
* .	1-650-669-11	LEAF SWITCH BOA						*********	********		
		< CONNECTOR >					7-685-646-79	SCREW +BVTP 3X8	3 TYPE2 N-S		
* CN1001	1-568-854-11	SOCKET, CONNECTO	OR 11P					< CAPACITOR >			
		< TRANSISTOR >				C201 C202	1-124-925-11 1-162-600-11		2. 2uF 0. 0047uF	20% 20%	100V 16V
Q1001	8-749-010-90	TRANSISTOR PHOTO	O REFLE	CTOR N.II.51	65KA-H2	C203 C211	1-126-925-11 1-124-925-11		470uF 2. 2uF	20% 20%	10V 100V
-		TRANSISTOR PHOTO				C212	1-162-600-11		0. 0047uF	20%	16V
		< RESISTOR >				C250	1-162-306-11	CERAMIC	0.01uF	20%	16V
	1-249-412-11 1-249-412-11			5% 1/4W 5% 1/4W		C251	1-164-035-11	CERAMIC	47PF	5%	UK, G, IT) 50V
R1003	1-249-414-11	CARBON	560	5% 1/4W	F	C252	1-102-527-11	CERAMIC	82PF	5%	UK, G, IT) 50V
	1-247-834-11 1-247-818-11			5% 1/4W 5% 1/4W		C253	1-162-291-31	CERAMIC	560PF	10%	UK, G, IT) 50V UK, G, IT)

### MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C254	1-162-306-11	CERAMIC	0.01uF	20%	16V	C711	1-126-177-11		100uF	20%	10V
				(AEP,	UK, G, IT)	C712	1-126-177-11		100uF	20%	10V
						C713	1-162-306-11		0.01uF	30%	16V
C255	1-162-288-31	CERAMIC	330PF	10%	50V	C801	1-162-288-31	CERAMIC	330PF	10%	50V
0050	1 104 005 11	DI DOT	0.05		UK, G, IT)	0000		0777444			G, IT, EE)
C256	1-124-925-11	ELECT	2. 2uF	20%	100V	C803	1-162-282-31	CERAMIC	100PF	10%	50V
0057	1 100 004 11	DI DOT	10		UK, G, IT)	0004	1 100 000 01	ODD HILL	10000	100	
C257	1-126-964-11	ELECI	10uF	20%	50V	C804	1-162-282-31		100PF	10%	50V
C258	1-162-291-31	CEDANIC	560PF	(AEP,	UK, G, IT)	C805	1-124-252-00	ELECI	0. 33uF	20%	50V
C236	1-102-291-31	CERAMIC	11006		50V UK, G, IT)	C805	1-124-925-11	DI DOT	2. 2uF	(E, AUS, 1 20%	PX, MX, AR)
C259	1-126-964-11	FLECT	10uF	20%	50V	C806	1-130-479-00		2. 2ur 0. 0047uF		100V 50V
0200	1 120 001 11	BBBOT	Tour		UK, G, IT)	C807	1-130-473-00		0. 0047uF		50V
				(11.51 )	011, 0, 11)	0001	1 100 410 00	WII DINK	0. 00 Tour	3/0	301
C260	1-164-159-21	CERAMIC	0. 1uF		50V	C808	1-124-463-00	ELECT	0. 1uF	20%	50V
				(AEP,	UK, G, IT)	C809	1-124-589-11		47uF	20%	16V
C261	1-126-967-11	ELECT	47uF	20%	16V						G, IT, EE)
				(AEP,	UK, G, IT)	C810	1-162-306-11	CERAMIC	0.01uF	30%	16V
C301	1-130-479-00	MYLAR	0.0047uF	5%	50V	C811	1-162-306-11		0. 01uF	30%	16V
C302	1-162-290-31	CERAMIC	470PF	10%	50 <b>V</b>	C821	1-162-286-21	CERAMIC	220PF	10%	50V
C303	1-164-159-21	CERAMIC	0. 1uF	5%	50 <b>V</b>				(		G, IT, EE)
			(	(AEP, UK,	G, IT, EE)						
						C825	1-109-889-11	ELECT	luF	20%	50V
C305	1-124-903-11		luF	20%	50V	C832	1-130-473-00	MYLAR	0.0015uF	5%	50V
C306	1-124-902-00		0. 47uF	20%	50V	C833	1-124-903-11	ELECT	luF	20%	50 <b>V</b>
C307	1-126-964-11		10uF	20%	50V	C834	1-130-479-00		0.0047uF	5%	50 <b>V</b>
C308	1-126-964-11		10uF	20%	50V	C835	1-124-903-11	ELECT	1uF	20%	50 <b>V</b>
C309	1-124-903-11	ELECT	luF	20%	50V						
0010	1 100 000 11	DI DOM	100 B	000		C836	1-136-495-11		0.068uF	5%	50V
C310	1-126-933-11		100uF	20%	10V	C837	1-126-947-11		47uF	20%	35V
C351	1-130-479-00		0. 0047uF	5%	50V	C838	1-124-902-00		0. 47uF	20%	50V
C352	1-162-290-31		470PF	10%	50V	C839	1-124-902-00		0. 47uF	20%	50V
C353	1-164-159-21	CERAMIC	0. 1uF	5% 'AED 11V	50V G, IT, EE)	C840	1-162-305-11	CERAMIC	0.0068uF	20%	16V
C355	1-124-903-11	FI FCT	luF '	20%	50V	C841	1-136-495-11	EIIM	0.068uF	5%	50V
0000	1 124 303 11	ELECT	IUI	20/0	301	C841	1-162-304-21		0.0047uF	5% 5%	
C356	1-124-902-00	FLECT	0. 47uF	20%	50V	C843	1-130-473-00		0. 0047uF	5%	50V 50V
C357	1-126-964-11		10uF	20%	50V	C844	1-124-903-11		luF	20%	50V
C358	1-126-964-11		10uF	20%	50V	C845	1-161-494-00		0. 022uF	2070	25V
C359	1-124-903-11		luF	20%	50V	0010	1 101 404 00	CDIVINITO	0. 022ui		231
C360	1-126-933-11		100uF	20%	107	C846	1-126-933-11	ELECT	100uF	20%	16V
						C847	1-162-306-11		0. 01uF	30%	16V
C401	1-164-159-21	CERAMIC	0. 1uF		50V	C848	1-162-290-31		470PF	10%	50V
C402	1-164-159-21	CERAMIC	0. 1uF		50V	C849	1-162-290-31	CERAMIC	470PF	10%	50 <b>V</b>
C403	1-164-159-21	CERAMIC	0. 1uF		50V	C851	1-162-288-31		330PF	10%	50V
C404	1-126-933-11		100uF	20%	16V				(	(AEP, UK,	G, IT, EE)
C405	1-126-935-11	ELECT	470uF	20%	16V						
			(	AEP, UK,	G, IT, EE)	C853	1-162-282-31		100PF	10%	50V
~=~.						C854	1-162-282-31		100PF	10%	50V
C701	1-162-306-11		0. 01uF	20%	16V	C855	1-124-252-00	ELECT	0. 33uF	20%	50V
C702	1-126-926-11		1000uF	20%	10V	00==	1 104 000 5				PX, MX, AR)
C703	1-126-964-11		10uF	20%	50V	C855	1-124-925-11		2. 2uF	20%	100V
C704	1-136-165-00		0. 1uF	5%	50V	C856	1-130-479-00	MYLAR	0. 0047uF	5%	50V
C705	1-136-165-00	LILM	0. 1uF	5%	50V	C0E7	1 120 472 00	MVI AD	0 0015 5	F0/	F01/
C706	1-126-965-11	FLFCT	22uF	20%	50V	C857 C858	1-130-473-00 1-124-463-00		0. 0015uF	5% 20°	50V
C707	1-162-206-31		20PF	20% 5%	50V 50V	C858 C859	1-124-463-00		0. 1uF	20%	50V
C708	1-162-206-31		20PF	5%	50V	0000	1-144-303-11	ELEC I	47uF	20%	16V
C709	1-126-934-11		220uF	20%	16V	C862	1-126-964-11	EI ECT	10uF		G, IT, EE)
C710	1-162-306-11		0. 01uF	30%	16V	C863	1-120-304-11		0. 01uF	20% 30%	50V
0110	2 202 000 11		J. VIUI	0070	101	2000	1 102 000-11	CERTAIL	o. orur	JU76	16V



Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C864	1-126-964-11	ELECT	10uF	20%	50V	C1009	1-162-294-31	CERAMIC	0.001uF	10%	50 <b>V</b>
C865	1-162-306-11		0. 01uF	30%	16V		1-164-159-21		0. 1uF	10/0	50V
C871	1-162-286-21		220PF	10%	50V		1-164-159-21		0. 1uF		50V
					G, IT, EE)		1-126-964-11		10uF	20%	50V
C900	1-126-964-11	ELECT	10uF	20%	50V		1-126-916-11		1000uF	20%	6. 3V
C901	1-124-464-11		0. 22uF	20%	50V	00000			200002	2070	0.01
0001	1 101 101 11	22201	VI 2241	20.0		C1014	1-126-964-11	ELECT	10uF	20%	50V
C902	1-124-464-11	ELECT	0. 22uF	20%	50V		1-126-964-11		10uF	20%	50V
C903	1-136-495-11		0. 068uF	5%	50V		1-126-925-11		470uF	20%	10V
C904	1-136-495-11		0. 068uF	5%	50V		1-126-925-11		470uF	20%	10V
C905	1-136-156-00		0. 018uF	5% 5%	50V		1-126-942-61		1000uF	20%	25V
C906	1-136-156-00		0. 018uF	5%	50V	CIOIO	1 120 342 01	DDDCI	100001	2070	201
C300	1 100 100 00	1 11201	o. oroar	3/8	301	C1020	1-126-947-11	EI ECT	47uF	20%	35V
C907	1-130-480-00	MVI AD	0.0056uF	5%	50 <b>V</b>		1-162-306-11		0. 01uF	30%	16V
C908	1-130-479-00		0. 0030uF	5%	50V		1-102-300-11		100uF	20%	50V
C909	1-130-474-00		0.0047uF	5%	50V		1-126-969-11		220uF		
C910	1-126-964-11		10uF	20%	50V		1-126-964-11		10uF	20%	50V
C910	1-126-964-11		10uF	20%	50V	C1024	1-120-904-11	ELECI	lour	20%	50V
C911	1-120-904-11	ELECT	Tour	20%	301	C102E	1-126-964-11	DI DOT	10uF	20%	50V
C912	1-136-169-00	EILM	0. 22uF	5%	50V		1-126-964-11		10uF		50V 50V
C912	1-136-169-00		0. 22uF	5%	50V		1-126-964-11		10ur 10uF	20%	
			0. 22ur 10uF							20%	50V
C914	1-126-964-11			20%	50V		1-126-933-11		100uF	20%	16V
C915	1-136-153-00		0. 01uF	5%	50V	C1830	1-136-165-00	FILM	0. 1uF	5%	50 <b>V</b>
C930	1-164-159-21	CERAMIC	0. 1uF		50V	C1001	1 100 105 00	DILL	0.1.0	-a/	F011
C001	1 100 000 11	CEDANIC	0.010	200	1077		1-136-165-00		0. luF	5%	50V
C931	1-162-306-11		0.01uF	30%	16V		1-136-167-00		0. 15uF	5%	50V
C933	1-124-902-00		0. 47uF	20%	50V		1-136-171-00		0. 33uF	5%	50V
C935	1-164-159-21		0. 1uF	000	50V		1-126-964-11		10uF	20%	50V
C936	1-126-964-11		10uF	20%	50V	C1838	1-126-964-11	ELECI	10uF	20%	50 <b>V</b>
C938	1-162-282-31	CERAMIC	100PF	10%	50V	C1020	1 100 004 11	DIDOT	10P	000	FOW
C0.42	1 196 064 11	EI ECT	10E	200/	FOV	(1839	1-126-964-11	ELECI	10uF	20%	50 <b>V</b>
C943	1-126-964-11		10uF	20%	50V			/ COMMECTOD >			
C944	1-126-964-11		10uF	20%	50V			< CONNECTOR >			
C950	1-126-964-11		10uF	20%	50V	CNIOO1	1 770 007 11	COMMECTOD DDC	DDC 10D		
C951	1-124-464-11		0. 22uF 0. 22uF	20% 20%	50V 50V			CONNECTOR, FFC/			
C952	1-124-464-11	ELECT	0. 22ur	20%	501			PIN, CONNECTOR		AUC DV I	uv an)
C953	1-136-495-11	DIIM	0. 068uF	5%	50V			SOCKET, CONNECT			
C954	1-136-495-11		0. 068uF	5% 5%	50V			SOCKET, CONNECT SOCKET, CONNECT		P, UK, G,	11, EE)
C955	1-136-156-00		0. 008uF	5%	50V	CN401	1-300-030-11	SUCKET, CONNECT	OR ZIP		
C956	1-136-156-00			5% 5%	50V 50V	+ CN1400	1 500 000 11	COCKET COMMECT	OD 11D		
C956 C957	1-130-130-00		0. 018uF 0. 0056uF		50V 50V			SOCKET, CONNECT HOUSING, CONNEC		מס (ממו	
Casi	1-130-460-00	MILAN	0. 0030ur	3/6	301			SOCKET, CONNECT			
C958	1-130-479-00	MVI AD	0. 0047uF	E9/	50V			SOCKET, CONNECT			
C959	1-130-474-00		0. 0047uF	5%	50V			CONNECTOR, BOAR			лх, AK)
C960	1-126-964-11		10uF	20%		+ CN1000	1-110-134-11	CONNECTOR, BOAR	D 10 BOARD	20P	
C961	1-126-964-11		10uF	20%	50V 50V			/ DIODE \			
C962	1-136-169-00		0. 22uF	20% 5%	50V			< DIODE >			
C902	1-130-109-00	rilm	0. 22ur	O76	5UV	D201	8-719-987-63	DIODE INALION			
coca	1 126 160 00	PILM	0.000	rov	F07/	D201					
C963	1-136-169-00		0. 22uF	5%	50V	D202	8-719-987-63			-m\	
C964	1-126-964-11		10uF	20%	50V	D251	8-719-987-63		(AEP, UK, G,	11)	
C965	1-136-153-00		0. 01uF	5%	50V	D401	8-719-933-54				
	1-126-937-11 1-126-768-11		4700uF	20%	16V	D701	8-719-987-63	DIODE 1N4148M			
C1002	1-120-108-11	ELECI	2200uF	20%	16V	0700	0 710 007 00	DIODE 13141404			
C1004	1 100 000 11	CI CCT	1000c-P	200	1617	D702	8-719-987-63				
	1-126-952-11		1000uF	20%	16V	D703	8-719-987-63				
	1-126-964-11		10uF	20%	50V	D704	8-719-987-63				
	1-126-952-11		1000uF	20%	16V	D705	8-719-987-63				
	1-126-934-11		220uF	20%	16V	D706	8-719-200-82	DIODE 11ES2			
C1008	1-126-933-11	ELECI	100uF	20%	16V						

### MAIN

Ref. No.	Part No.	Descrip	tion	Remark	Ref. No.	Part No.	Description			Remark
D707	8-719-987-63	DIODE	1N4148M				< JACK >			
D801	8-719-987-63		1N4148M		1001	1 605 100 21	IACV DIN AD	(DUONO VI	IDEO (AUDIO	() TM)
D901 D902	8-719-987-63 8-719-987-63		1N4148M 1N4148M		J801	1-095-100-31	JACK, PIN 4P	(PHONO, VI	IDEO (AUDIO	) IN)
			11ES2				< RESISTOR >			
	8-719-200-82		11ES2		JP105	1-247-895-91	CARBON	470K 5		
	8-719-200-82 8-719-200-82		11ES2 11ES2		JP105	1-249-429-11	CARBON	10K 5	E, AUS, PX) 1/4\	, MX, AR)
D1006	8-719-200-82	DIODE	11ES2						(AEP, UK, G	, IT, EE)
D1007	8-719-987-63	DIODE	1N4148M				< COIL >			
	8-719-001-43		UZL-11M1-TA						·	\
	8-719-200-82 8-719-200-82		11ES2 11ES2		L250 L840	1-410-521-11 1-410-521-11		100uH 100uH	(AEP, UK, G, I	T)
	8-719-010-43		UZ-5. 6BSC		1040	1 410 001 11	INDUCTOR	Toodii		
D1012	8-719-013-63	DIODE	UZ-30BS				< TRANSISTOR	>		
	8-719-200-82		11ES2		Q301	8-729-119-78		2SC2785-HI		
	8-719-200-82		11ES2		Q351	8-729-119-78		2SC2785-HI		
	8-719-987-63		1N4148M 11ES2		Q401 Q402	8-729-119-78 8-729-900-65		2SC2785-HI DTA144ES	t.	
	8-719-200-82 8-719-200-82		11ES2 11ES2		Q402 Q403	8-729-801-93		2SD1387		
	8-719-200-82		11ES2		Q406	8-729-900-80		DTC114ES		
	8-719-200-82 8-719-200-82		11ES2 11ES2		Q407 Q408	8-729-422-57 8-729-119-76		UN4111 2SA1175-HI	20	
	8-719-210-21		11EQS04		Q409	8-729-900-80		DTC114ES	T. D.	
	8-719-987-63		1N4148M		Q410	8-729-900-65		DTA144ES		
D1831	8-719-987-63	DIODE	1N4148M		Q411	8-729-900-65	TRANSISTOR	DTA144ES		
					Q412	8-729-900-65		DTA144ES		
		< EPT >	•		Q701	8-729-119-78		2SC2785-HI		
EDT100	09 1 E97 770 9	1 TEDMIN	NAL BOARD, GROUND		Q801 Q802	8-729-119-78 8-729-422-57		2SC2785-HI UN4111	Æ	
EFIIO	02 1-551-110-2		AL BOARD, GROUND		<b>Q</b> 002	0-125-422-51	INMISISION	UN4111		
		< IC >			Q803	8-729-119-78		2SC2785-HI	FE	
10250	8-759-169-99	TC	ACETO (AED UV C IT)		Q804	8-729-422-57 8-729-119-78		UN4111 2SC2785-HI	20	
	8-759-634-51		AA6579 (AEP, UK, G, IT) 5218AP (AEP, UK, G, IT)		Q805 Q806	8-729-422-57		UN4111	T.E.	
	8-759-289-38		12195NT (AEP, UK, G, IT, EE)		Q820	8-729-422-57		UN4111		
	8-759-289-39		112196NT (E, AUS, PX, MX, AR)							
IC402	8-759-822-09	IC LB	31641		Q830	8-729-141-26	TRANSISTOR	2SC3622A-I		
					Q831	8-729-141-26		2SC3622A-I		
	8-759-375-44		MP87CS64YF-6361		Q901	8-729-119-78		2SC2785-HI		
	8-759-165-80		ST600C-T		Q902	8-729-119-78		2SC2785-HI		
	8-759-634-51 8-759-000-48		5218AP C14052BCP		<b>Q</b> 951	8-729-119-78	TRANSISION	2SC2785-HI	'L	
	8-759-634-51		5218AP		Q952	8-729-141-26	TRANSISTOR	2SC3622A-I	LK	
					Q953	8-729-141-26		2SC3622A-I		
IC805	8-759-634-51	IC M5	5218AP		Q954	8-729-119-78		2SC2785-HI	FE	
	8-759-265-83		55843FP			8-729-118-01		2SB1116-K		
	8-759-634-51		5218AP		Q1002	8-729-900-80	TRANSISTOR	DTC114ES		
	8-759-331-39		52427FP		01002	8-729-030-18	TDANCICTOD	2SD2525		
10902	8-759-634-51	IC MD	5218AP		•	8-729-030-18		2SD2525 2SB1640		
	1 8-759-231-53		17805S							
	2 8-759-604-86		5F7807L				< RESISTOR >			
	3 8-759-604-86		5F7807L		D201	124041511	CADDON	600 1	:0/ 1/4m	r.
101004	4 8-759-604-90	IC M5	5F7907L		R201	1-249-415-11	MARDUN	680	5% 1/4W	Г



Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
<del></del>			0017	=0/	* / 4 ***								
R202	1-249-435-11		33K	5%	1/4W		R414	1-249-429-11	CARBON	10K	<b>5%</b>	1/4W	
R211	1-249-415-11		680	5%	1/4W	F	D.115	1 040 400 11	CADDON	1017	F0/	1 / 177	
R212	1-249-435-11		33K	5%	1/4W		R415	1-249-429-11		10K	5%	1/4W	
R224	1-247-807-31	CARBON	100	5%	1/4W		R416	1-249-429-11		10K	5%	1/4W	
D050	1 040 401 11	O L D D O V	0.017	<b>-0</b> /	1 / 477	n	R417	1-249-429-11		10K	5%	1/4W	
R250	1-249-421-11	CARBON	2. 2K	5%	1/4W		R418	1-249-429-11		10K	5%	1/4W	
D051	1 040 401 11	CADDON	477	E0/		K, G, IT)	R419	1-249-429-11	CARBON	10K	5%	1/4W	
R251	1-249-401-11	CARBON	47	5%	1/4W	-	D.100	1 040 400 11	CADDON	1017	-a/	* / / ***	
naca	1 040 441 11	CADDON	1007	<b>-α</b>		K, G, IT)	R420	1-249-429-11	CARBON	10K	5%	1/4W	IM DD)
R252	1-249-441-11	CARBON	100K	5%	1/4W	v c ir)	D401	1 240 420 11	CADDON	1017		P, UK, G,	11, EE)
R253	124044111	CADDON	100K	E <b>Q</b> /	1/4W	K, G, IT)	R421	1-249-429-11	CARDON	10K	5% (AE	1/4W	in pp)
KZ55	1-249-441-11	CARDON	100K	376		K, G, IT)	R454	1-247-863-91	CADDON	22K	5%	P, UK, G,	11, EE)
R254	1-249-426-11	CAPRON	5. 6K	5%	1/4W	n, u, 11)	R454 R455	1-247-863-91		22K 22K	5% 5%	1/4W 1/4W	
R234	1-249-420-11	CARDON	5. OK	3/6		K, G, IT)	R455	1-249-411-11		330	ეჯა 5%/	1/4W 1/4W	
					(ALI, U	n, u, 11)	11430	1-245-411-11	CARDON	330	3/6	1/4#	
R255	1-249-429-11	CARRON	10K	5%	1/4W		R457	1-249-427-11	CARRON	6. 8K	5%	1/4W	r
K200	1 240 420 11	CHILDON	1011	570		K, G, IT)	R458	1-249-429-11		10K	5%	1/4W	r
R256	1-247-807-31	CARBON	100	5%	1/4W	, 0, 11/	R461	1-249-417-11		1K	5%	1/4W	F
11200	1 211 001 01	Childon	100	070		K, G, IT)	R701	1-249-429-11		10K	5%	1/4W	ı
R301	1-249-430-11	CARBON	12K	5%	1/4W	, 0, 11)	R702	1-249-437-11		47K	5%	1/4W	
R302	1-249-431-11		15K	5%	1/4W			1 110 101 11	Childon	• • • • •	0.0	1/ 111	
R303	1-249-432-11		18K	5%	1/4₩		R703	1-249-437-11	CARBON	47K	5%	1/4W	
*****		•			AEP, UK, G	. IT. EE)	R704	1-249-429-11		10K	5%	1/4W	
				\	,, -	,,,	R705	1-249-429-11		10K	5%	1/4W	
R304	1-249-428-11	CARBON	8. 2K	5%	1/4W	F	R706	1-249-429-11	CARBON	10K	5%	1/4W	
R305	1-249-425-11		4.7K		1/4W		R708	1-249-423-11		3. 3K	5%	1/4W	F
R306	1-247-840-00	CARBON	2. 4K	5%	1/4W							Ŧ,	
R307	1-247-863-91		22K	5%	1/4W		R709	1-249-441-11	CARBON	100K	5%	1/4W	
R308	1-249-421-11	CARBON	2. 2K	5%	1/4W	F	R710	1-249-429-11	CARBON	10K	5%	1/4W	
							R712	1-249-429-11	CARBON	10K	5%	1/4W	
R309	1-249-428-11	CARBON	8. 2K	5%	1/4₩	F	R713	1-249-429-11	CARBON	10K	5%	1/4W	
R310	1-249-417-11	CARBON	1K	5%	1/4W	F	R714	1-249-429-11	CARBON	10K	5%	1/4W	
R351	1-249-430-11	CARBON	12K	5%	1/4₩								
R352	1-249-431-11		15K	5%	1/4W		R715	1-249-429-11		10K	5%	1/4W	
R354	1-249-428-11	CARBON	8. 2K	5%	1/4W	F	R718	1-247-807-31		100	5%	1/4W	
							R719	1-247-807-31		100	<b>5%</b>	1/4W	
R355	1-249-425-11				1/4W	F	R720	1-247-807-31		100	5%	1/4W	
R356	1-247-840-00		2. 4K		1/4W		R721	1-247-807-31	CARBON	100	<b>5%</b>	1/4W	
R357	1-247-863-91		22K	5%	1/4W	_							
R358	1-249-421-11			5%	1/4W		R722	1-247-807-31	CARBON	100	5%	1/4W	
R359	1-249-428-11	CARBON	8. 2K	5%	1/4W	F	200	1 015 005 01	CIPPON			(AEP, UK	, G, IT)
paco	1 940 417 11	CADDON	117	-o	1 / 407		R723	1-247-807-31	CARBON	100	5%	1/4W	a .m\
R360 R401	1-249-417-11 1-249-425-11		1K	5%	1/4₩		D794	1 247 907 21	CADDON	100		(AEP, UK	, G, IT)
R401 R402	1-249-425-11		4. 7K 4. 7K		1/4W		R724	1-247-807-31		100	5 <b>%</b>	1/4W	
R402	1-249-425-11		4. 7K		1/4W 1/4W		R725 R726	1-247-807-31 1-247-807-31		100 100	5% 5%	1/4W	
R404	1-249-417-11		1K	5%	1/4W		K120	1-241-001-31	CARDON	100	376	1/4W	
MIOI	1 243 411 11	CARDON	111	0.70	1/ 41	1	R727	1-247-807-31	CARRON	100	5%	1/4W	
R405	1-249-437-11	CARRON	47K	5%	1/4W		R728	1-247-807-31		100	5%	1/4W	
R406	1-249-437-11		47K	5%	1/4W		R729	1-247-807-31		100	5%	1/4W	
R407	1-249-437-11		47K	5%	1/4W		R730	1-247-807-31		100	5%	1/4W	
R408	1-249-437-11		47K	5%	1/4W		R730	1-247-807-31		100	5%	1/4W	
R409	1-249-429-11		10K	5%	1/4W			001 01		100	J.N	1/ 1/T	
	11			J.•	-, •"		R732	1-247-807-31	CARBON	100	5%	1/4W	
R410	1-247-882-11	CARBON	130K	5%	1/4W		R733	1-247-807-31		100	5%	1/4W	
R411	1-247-866-11		30K	5%	1/4₩		R734	1-247-807-31		100	5%	1/4W	
R412	1-249-429-11		10K	5%	1/4W		R735	1-247-807-31		100	5%	1/4W	
					EP, UK, G	, IT, EE)	R736	1-247-807-31		100	5%	1/4W	
R413	1-247-864-11	CARBON	24K	5%	1/4W				-			-, •"	

### MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description				Remark
R737	1-247-807-31 1-249-427-11		100	5%	1/4W	R807	1-249-417-11	CARBON	1K	5%	1/4W	F
R738			6. 8K		1/4W F	Dono	1 040 441 11	CADDOM	1007	ro/	1 / 400	
R739	1-249-423-11		3. 3K		1/4W F	R808	1-249-441-11			5%	1/4W	
R740	1-247-863-91	CARBON	22K	5%	1/4W F (AUS, PX)	R809	1-247-815-91	CARBON	220	5% (A	1/4W AEP, UK, G,	IT, EE)
R740	1-249-423-11	CARBON	10K	5%	1/4W F	R810	1-249-417-11	CARBON	1K	5%	1/4W	F
					(AEP, UK)	R811	1-249-417-11	CARBON	1K	5%	1/4W	F
						R821	1-249-417-11	CARBON	1K	5%	1/4W	
R740	1-249-425-11	CARBON	4.7K	5%	1/4W F						-,	_
	1 010 100 11	CIMBON		0,0	(E, MX, AR)	R822	1-249-441-11	CARRON	100K	5%	1/4W	
R740	1-249-427-11	CARRON	6. 8K	592	1/4W F	R825	1-247-887-00			5%	1/4W	
1140	1 243 421 11	CARDON	0. 011	370	(G, IT)	R826	1-249-441-11		100K		1/4W	
D740	1-249-435-11	CADDON	221/	rov	1/4W F (EE)	1						
R740			33K	5%		R827	1-249-429-11		10K	5%	1/4W	
R741	1-247-863-91	CARBON	22K	5%	1/4W F (AUS, PX)	R837	1-249-429-11	CARBON	10K	5%	1/4₩	
R741	1-249-423-11	CADDON	3. 3K	E <b>0</b> /	1/4W F	R838	1 240 421 11	CADDOM	1	rø/	1 / 450	
K/41	1-249-423-11	CARDON	3. 3h	376		4	1-249-431-11		15K	5%	1/4W	
					(AEP, UK, G, IT)	R839	1-249-431-11		15K	5%	1/4W	_
22.11		0.1000.				R840	1-249-399-11		33	5%	1/4W	
R741	1-249-427-11	CARBON	6.8K	5%	1/4W F	R841	1-249-421-11		2. 2K		1/4W	F
					(E, MX, AR, EE)	R842	1-247-863-91	CARBON	22K	5%	1/4₩	
R742	1-249-413-11		470	5%	1/4W F							
R743	1-247-807-31		100	5%	1/4W	R843	1-249-431-11	CARBON	15K	5%	1/4W	
R744	1-247-807-31	CARBON	100	5%	1/4W	R844	1-249-431-11	CARBON	15K	5%	1/4W	
R745	1-247-807-31	CARBON	100	5%	1/4W	R845	1-249-429-11	CARBON	10K	5%	1/4₩	
						R846	1-249-431-11	CARBON	15K	5%	1/4W	
R753	1-247-807-31	CARBON	100	5%	1/4W	R847	1-249-417-11		1K	5%	1/4W	F
R755	1-247-807-31		100	5%	1/4₩					0,0	-,	•
R757	1-247-807-31		100	5%	1/4W	R848	1-247-903-00	CARRON	1M	5%	1/4W	
R758	1-247-807-31		100	5%	1/4W	R849	1-249-427-11		6. 8K		1/4W	F
R759	1-247-807-31		100	5%	1/4W	R851	1-249-417-11		1K	5%	1/4W	
N 1 J J	1 241 601 51	CARDON	100	370	1/411	1,001	1-245-411-11	CARDON	ıv			
D760	1 247 007 21	CADDON	100	E 6/	1 / AW	Doco	1 040 417 11	CADDON	117		EP, UK, G,	
R760	1-247-807-31		100	5% 5%	1/4W	R852	1-249-417-11		1K	5%	1/4W	r
R761	1-247-807-31		100	5%	1/4W	R853	1-249-437-11	CARBON	47K	5%	1/4W	
R762	1-249-429-11		10K	5%	1/4W							
R763	1-249-429-11		10K	5%	1/4W	R854	1-249-419-11		1.5K		1/4W	F
R764	1-247-807-31	CARBON	100	·5 <b>%</b>	1/4W	R855	1-247-897-11		560K		1/4W	
						R856	1-249-437-11		47K	5%	1/4W	
R766	1-247-807-31		100	5%	1/4W	R857	1-249-417-11	CARBON	1K	5%	1/4W	F
R767	1-247-807-31	CARBON	100	<b>5%</b>	1/4W	R858	1-249-441-11	CARBON	100K	5%	1/4W	
R768	1-247-807-31	CARBON	100	5%	1/4W	1						
R769	1-247-807-31	CARBON	100	5%	1/4W	R859	1-247-815-91	CARBON	220	5%	1/4W	
R770	1-247-807-31	CARBON	100	5%	1/4W					(A	EP, UK, G,	IT, EE)
						R860	1-249-437-11	CARBON	47K	5%	1/4₩	•
R771	1-247-807-31	CARBON	100	5%	1/4W	R861	1-249-431-11	CARBON	15K	5%	1/4W	
R772	1-247-807-31		100	5%	1/4W	R862	1-249-427-11		6.8K		1/4W	F
R773	1-247-807-31	CARBON	100	5%	1/4W	R863	1-247-887-00		220K	5%	1/4W	-
R774	1-247-807-31		100	5%	1/4W					0,0	-/ -!!	
R775	1-247-807-31		100	5%	1/4W	R864	1-247-887-00	CARBON	220K	5%	1/4W	
	1 011 001 01	C.II.DO.	100	070	1/ 1"	R865	1-247-887-00		220K		1/4W	
R776	1-247-807-31	CARRON	100	5%	1/4W	R866	1-249-441-11		100K		1/4W	
R777	1-249-429-11		100 10K	5%	1/4W	R867	1-249-441-11					
						3			100K	5%	1/4W	
R778	1-249-429-11 1-249-417-11		10K	5% 5°	1/4W F	R868	1-249-441-11	CARDON	100K	<b>37</b> 6	1/4₩	
R801	1-249-417-11	CARBON	1K	5%	1/4W F	DOT 1	1 040 417 11	ALDRON				_
D000	1 040 477 11	CADDON	117		P, UK, G, IT, EE)	R871	1-249-417-11		1K	5%	1/4W	r
R802	1-249-417-11	CARBON	1K	<b>5%</b>	1/4W F	R872	1-249-441-11			5%	1/4W	
		0.17701-				R875	1-249-429-11		10K	5%	1/4W	
R803	1-249-437-11		47K	5%	1/4W	R876	1-249-429-11		10K	5%	1/4W	
R804	1-249-419-11	CARBON	1.5K		1/4W F	R877	1-249-429-11	CARBON	10K	5%	1/4W	
R805	1-247-897-11	CARBON	560K	5%	1/4₩							
R806	1-249-437-11	CARBON	47K	5%	1/4W	R881	1-249-421-11	CARBON	2. 2K	5%	1/4W	F



Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
R882	1-249-417-11	CARBON	1K	5%	1/4W	F	R963	1-249-429-11	CARBON	10K	5%	1/4W	
R883	1-249-429-11		10K	5%	1/4₩	•	R964	1-249-437-11		47K	5%	1/4W	
R884	1-249-423-11		3. 3K	5%	1/4₩	F	R965	1-249-441-11		100K	5%	1/4W	
R885	1-249-437-11		47K	5%	1/4W		R966	1-249-441-11		100K	5%	1/4W	
					-,		R967	1-249-429-11		10K	5%	1/4W	
R887	1-249-431-11	CARBON	15K	5%	1/4W							-,	
R890	1-247-863-91		22K	5%	1/4W		R973	1-249-429-11	CARBON	10K	5%	1/4W	
R901	1-249-425-11		4. 7K	5%	1/4W	F						E, AUS, PX	MX. AR)
R902	1-249-429-11	CARBON	10K	5%	1/4W		R974	1-247-903-00	CARBON	1M	5%	1/4W	,,
R904	1-249-437-11		47K	5%	1/4W		i	1-249-421-11		2. 2K	5%	1/4W	F
							Į.	1-247-815-91		220	5%	1/4W	-
R905	1-249-441-11	CARBON	100K	5%	1/4W		t	1-249-417-11		1K	5%	1/4W	F
R906	1-247-895-91		470K	5%	1/4W							-,	•
R907	1-249-437-11		47K	5%	1/4W		R1006	1-249-417-11	CARBON	1K	5%	1/4W	F
R908	1-249-429-11		10K	5%	1/4₩		1	1-247-815-91		220	5%	1/4W	•
R909	1-249-411-11		330	5%	1/4W	F	1	1-247-815-91		220	5%	1/4W	
	1 510 111 11	Childon	000	070	-/ -"	•	1	1-249-421-11		2. 2K	5%	1/4W	F
R910	1-249-429-11	CARBON	10K	5%	1/4W		1	1-249-417-11		1K	5%	1/4W	
R911	1-249-421-11		2. 2K	5%	1/4₩	F		1 210 111 11	Cimbon		0.0	1/ 1//	•
R912	1-249-441-11		100K	5%	1/4W	•	R1830	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R913	1-249-429-11		10K	5%	1/4W		i	1-249-437-11		47K	5%	1/4W	•
R914	1-249-437-11		47K	5%	1/4W		5	1-249-419-11		1. 5K	5%	1/4W	F
				0.0	-,		1	1-249-429-11		10K	5%	1/4W	•
R915	1-249-441-11	CARRON	100K	5%	1/4W		1	1-247-895-91		470K	5%	1/4W	
R916	1-249-441-11		100K	5%	1/4\		11001	1 241 000 01	Childon	41011	070	1/ 111	
R917	1-249-429-11		10K	5%	1/4₩		R1835	1-247-863-91	CARRON	22K	5%	1/4W	
R920	1-249-441-11		100K	5%	1/4W			1-249-429-11		10K	5%	1/4W	
R922	1-247-903-00		100K	5%	1/4₩			1-249-429-11		10K	5%	1/4W	
KULL	1 247 300 00	Childon	IM	070	1/ 1/1			1-249-429-11		10K	5%	1/4W	
R923	1-249-429-11	CARRON	10K	5%	1/4W			1-249-419-11		1. 5K	5%	1/4W	E
Nobo	1 410 480 11	CHILDON	1011			, MX, AR)	KIOOJ	1 240 410 11	CARDON	1. JK	J 70	1/4#	ľ
R924	1-247-903-00	CARRON	1M	5%	1/4W	, 1111, 1111)	R1840	1-249-437-11	CARRON	47K	5%	1/4W	
R930	1-249-429-11		10K	5%	1/4W			1-249-431-11		12K	5%	1/4W	
R931	1-249-429-11		10K	5%	1/4W		l .	1-249-425-11		4. 7K	5%	1/4W	F
R932	1-249-425-11		4. 7K	5%	1/4₩	F		1-249-441-11		100K	5%	1/4W	•
*****					-,			1-249-429-11		10K	5%	1/4W	
R933	1-247-895-91	CARBON	470K	5%	1/4W							-,	
R934	1-249-437-11		47K	5%	1/4W				< VARIABLE RESI	STOR >			
R938	1-247-807-31	CARBON	100	5%	1/4W								
R939	1-247-807-31	CARBON	100	5%	1/4W		RV301	1-238-600-11	RES, ADJ, CARBO	N 10K			
R940	1-249-429-11	CARBON	10K	5%	1/4W				RES, ADJ, CARBO				
									., .,				
R941	1-249-429-11	CARBON	10K	5%	1/4W				< VIBRATOR >				
R942	1-249-429-11	CARBON	10K	5%	1/4W								
R947	1-247-807-31		100	5%	1/4₩		X81	1-579-900-21	VIBRATOR, CRYST	AL (4.	332MI	Hz)	
R951	1-249-425-11	CARBON	4.7K	5%	1/4W	F			, , , , , , , , , , , , , , , , , , , ,			(AEP, U	(, G, IT)
R952	1-249-429-11		10K	5%	1/4W		X701	1-579-175-11	VIBRATOR, CERAM	IC (10	MHz)	(1121, 01	-, 0, 11)
							X702		VIBRATOR, CRYST				
R953	1-249-437-11	CARBON	47K	5%	1/4W		X801		OSCILLATOR, CER		,	Hz)	
R954	1-249-437-11	CARBON	47K	5%	1/4W				,			/	
R955	1-249-441-11		100K		1/4W		******	******	******	*****	****	******	*****
R956	1-247-895-91			5%	1/4₩								
R957	1-249-437-11		47K	5%	1/4W								
R958	1-249-429-11	CARBON	10K	5%	1/4W								
R959	1-249-411-11		330	5%	1/4₩	F							
R960	1-249-429-11		10K	5%	1/4W								
R961	1-249-421-11			5%	1/4W	F							
R962	1-249-441-11		100K		1/4W								



Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Descrip	tion				Remark
*	A-2007-435-A	MD BOARD, COMPL						< IC >					
		******	(includi	ng MOTO	R board)		8-759-710-59		M4580D-D				
		MOTOR BOARD					8-759-143-54 8-759-710-59		C1330HA M4580D-D				
		< CAPACITOR >						< COIL	>				
C301	1-162-289-31		390PF	10%	50 <b>V</b>	L331	1-410-780-11	INDUCTO	R	27mH			
C302	1-126-968-11		100uF	20%	6. 3V	L431	1-410-780-11	INDUCTO	R	27mH			
C303 C304	1-162-282-31 1-130-483-00		100PF 0.01uF	10% 5%	50V 50V			< MOTOR	>				
C305	1-107-715-11		22uF	20%	16V	!		· moron					
						M2	X-3369-111-1	MOTOR A	SSY (TRI	GGER)			
C311	1-162-289-31		390PF	10%	50V			( mp.1330	TOMOD .				
C313 C314	1-162-282-31 1-130-487-00		100PF 0. 022uF	10% 5%	50V 50V			< TRANS	ISTOR >				
C314 C315	1-126-233-11		0. 022ur 22uF	20%	50V	Q621	8-729-142-46	TRANSIS	TOR 2S	C2001-	LK		
C331	1-137-427-11		120PF	5%	50V	Q622	8-729-142-46			C2001-			
						Q623	8-729-801-93		TOR 2SI	01387			
C332	1-162-288-31		330PF	10%	50V	Q651	8-729-900-65	TRANSIS	TOR DT	A144ES	3		
C333 C401	1-162-209-31 1-162-289-31		27PF 390PF	5% 10%	50V 50V			< RESIS	TOD \				
C401	1-126-968-11		100uF	20%	6. 3V			\ NEXIS	ION >				
C403	1-162-282-31		100PF	10%	50V	R301	1-247-881-00	CARBON		120K	5%	1/4W	
						R302	1-249-409-11			220	5%	1/4₩	F
C404	1-130-483-00		0.01uF	5%	50V	R303	1-249-433-11			22K	5%	1/4W	
C405 C411	1-107-715-11 1-162-289-31		22uF 390PF	20% 10%	16V 50V	R304 R305	1-247-889-00 1-247-858-11			270K 13K	5% 5%	1/4W 1/4W	
C411	1-162-282-31		100PF	10%	50V	11000	1 247 050 11	CARDON		1011	J 70	1/48	
C414	1-130-487-00		0. 022uF	5%	50 <b>V</b>	R311	1-247-881-00	CARBON		120K	5%	1/4W	
						R312	1-247-807-31			100	5%	1/4W	
C415	1-126-233-11		22uF	20%	50V	R314	1-247-882-11			130K		1/4W	
C431 C432	1-137-427-11 1-162-288-31		120PF 330PF	5% 10%	50V 50V	R315 R331	1-247-850-11 1-249-430-11			6. 2K 12K	5% 5%	1/4W 1/4W	
C433	1-162-209-31		27PF	5%	50V	ROOT	1 243 400 11	CARDON		1211	J/0	1/41	
C601	1-126-157-11	ELECT	10uF	20%	16V	R401	1-247-881-00	CARBON		120K	5%	1/4W	
						R402	1-249-409-11			220	5%	1/4W	F
C602	1-126-157-11 1-124-907-11		10uF	20%	16V	R403	1-249-433-11			22K	5%	1/4₩	
C611 C612	1-124-907-11		10uF 10uF	20% 20%	50V 50V	R404 R405	1-247-889-00 1-247-858-11			270K 13K	5% 5%	1/4W 1/4W	
C621	1-137-150-11		0. 01uF	5 <b>%</b>	100V	11400	1 247 050 11	CARDON		1011	J/0	1/4#	
C622	1-126-961-11	ELECT	2. 2uF	20%	50 <b>V</b>	R411	1-247-881-00	CARBON		120K	5%	1/4W	
0000	1 100 155 00	B	0 015 B			R412	1-247-807-31			100	5%	1/4W	
C623 C624	1-136-155-00 1-130-481-00		0. 015uF 0. 0068uF	5% 5%	50V 50V	R414 R415	1-247-882-11 1-247-850-11			130K 6. 2K	5% 5%	1/4W	
C625	1-130-481-00		0.0068uF	5%	50V	R415	1-247-650-11			0. ZK 12K	5% 5%	1/4W 1/4W	
C627	1-124-903-11		luF	20%	50V	11101	1 210 100 11	Childon		1011	070	1/11	
C628	1-136-153-00	FILM	0.01uF	<b>5%</b>	50 <b>V</b>	R601	1-249-409-11	CARBON		220	5%	1/4W	F
						R602	1-249-409-11			220	5%	1/4₩	
C642	1-104-664-11		47uF	20%	16V	R608	1-249-409-11			220	5%	1/4W	F
C651	1-161-494-00	CERAMIC	0. 022uF		25V	R609 R611	1-249-433-11 1-249-409-11			22K 220	5% 5%	1/4W 1/4W	F
		< CONNECTOR >				MOTI	* #10 100 II	CHILDON		220	<i>U /</i> 0	1/1211	•
						R612	1-249-409-11	CARBON		220	5%	1/4W	
		SOCKET, CONNECTOR		r) or	:	<u>↑</u> R621	1-212-851-00			5. 6	5%	1/4W	
		PIN, CONNECTOR PLUG, CONNECTOR		c) ZP		/∱R622 R623	1-212-851-00 1-249-432-11			5.6 18K	5% 5%	1/4W 1/4W	ť
+ CH031	1 004 021-11	1 DOG, COMMECTOR	O1			R624	1-249-432-11			18K	5% 5%	1/4W	
										•			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.

Replace only with part number specified.



Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R625	1-249-429-11	CARBON	10K	5% 1/4W		R907	1-249-436-11	CARBON	39K 5%	1/4W	
R651	1-247-856-00			5% 1/4\		R911	1-249-441-11		100K 5%	1/4W	
R652	1-247-856-00	CARBON	11K	5% 1/4W		R931	1-247-887-00	CARBON	220K 5%	1/4W	
R653	1-249-441-11	CARBON	100K	5% 1/4W							
		A MADIANI E DEGI	CTOD \					< VARIABLE RESI	STOR >		
		< VARIABLE RESI	510K >			RVQN1	1-223-983-11	RES, VAR, CARBO	N SOK (MIC	'IEVEI)	
RV301	1-238-598-11	RES, ADJ, CARBO	N 2. 2K			117301	122536511	itio, thit, Childo	N JOK (MIC	, LETEL)	
		RES, ADJ, CARBO				******	*******	******	*******	*****	******
		RES, ADJ, CARBO								_	
		RES, ADJ, CARBO				*	A-4389-163-A	PANEL BOARD, CO			
KV411	1-238-598-11	RES, ADJ, CARBO	N 2. ZK					*********	*******	*****	*****
RV441	1-238-551-11	RES, ADJ, CARBO	N 220K			*	A-4389-165-A	PANEL BOARD, CO	MPLETE (E,	AUS, PX,	MX, AR)
		RES, ADJ, CARBO						*********			
RV652	1-238-599-11	RES, ADJ, CARBO	N 4.7K					HOLDED BY MIND			
		< TRANSFORMER >					4-971-014-11	HOLDER, FL TUBE			
		V HAROFORMER >						< CAPACITOR >			
T621	1-423-980-11	TRANSFORMER, BI	AS OSCII	LLATION							
						C501	1-124-465-00		0. 47uF	20%	50V
******	*********	******	******	******	******	C502	1-164-159-21		0. 1uF	000/	50V
at.	1 650 414 11	MIC BOARD (E, AU	C DV MV	AD)		C503 C504	1-124-465-00 1-164-159-21		0. 47uF	20%	50V
*	1-059-414-11	*********				C504 C505	1-164-159-21		0. 1uF 0. 001uF	10%	50V 50V
		***************************************					1 100 001 01	ODIUMI O	0. 001ui	10%	001
		< CAPACITOR >				C506	1-126-177-11		100uF	20%	10 <b>V</b>
						C511	1-164-159-21		0. 1uF		50V
C901	1-162-306-11		0. 01uF		16V	C512	1-164-159-21		0. 1uF		50V
C903 C904	1-162-294-31 1-124-257-00		0. 001ul 2. 2uF	F 10% 20%	50V 50V	C513 C514	1-164-159-21 1-164-159-21		0. 1uF 0. 1uF		50V
C904 C905	1-124-237-00		2. Zur 47PF	20% 5%	50 <b>V</b>	C514	1-104-159-21	CERAMIC	u. iur		50V
C906	1-162-290-31		470PF	10%	50V	C515	1-126-793-11	ELECT	33uF	20%	35V
						C518	1-126-157-11	ELECT	10uF	20%	16V
C907	1-124-259-00		2. 2uF	20%	50 <b>V</b>	C519	1-164-159-21		0. 1uF		50V
C908	1-124-257-00		2. 2uF	20%	50V	C520	1-164-159-21		0. 1uF		50 <b>V</b>
C909	1-162-215-31		47PF 220PF	5% 10%	50V 50V	C521	1-164-159-21	CERAMIC	0. 1uF		50V
C910 C911	1-162-286-21 1-126-963-11		4. 7uF	20%	50V 50V	C522	1-164-159-21	CERAMIC	0. 1uF		50V
0311	1 120 303 11	LEDCI	4. rui	20%	301	C522	1-126-177-11		100uF	20%	10V
C931	1-126-964-11	ELECT	10uF	20%	50V	C524	1-126-177-11		100uF	20%	10V
C941	1-126-964-11	ELECT	10uF	20%	50V	C545	1-162-306-11		0.01uF	30%	16V
						C546	1-162-306-11	CERAMIC	0.01uF	30%	16V
		< IC >				C547	1-126-157-11	EI ECT	10uF	20%	16V
IC901	8-759-634-51	IC M5218AP				C541	1-126-137-11		100r 100uF	20%	16V 10V
						C601	1-126-157-11		10uF	20%	16V
		< JACK >				l	1-164-159-21		0. 1uF		50V
1001	1 579 151 11	TACK TADOR TVD	e (MIC)			C3010	1-162-294-31	CERAMIC	0.001uF	10%	50V
J901	1-575-151-11	JACK, LARGE TYP	c (MIC)			C3034	1-126-177-11	FLECT	100uF	20%	10V
		< RESISTOR >					1-126-177-11		100uF	20%	10V 10V
							1-126-177-11		100uF	20%	10V
R901	1-249-429-11			5% 1/4W			1-164-159-21		0. 1uF		50V
R902	1-249-417-11			5% 1/4W		C3201	1-126-163-11	ELECT	4. 7uF	20%	50V
R903 R904	1-249-441-11		100K			Caana	1_126_160_00	DIIM	0.00-10	F <b>0</b> /	COV
R904 R905	1-249-417-11 1-247-863-91			5% 1/4W 5% 1/4W			1-136-169-00 1-124-464-11		0. 22uF 0. 22uF	5% 20%	50V 50V
11000	1 741 000 91	O.III.DOII	20IX (	υ.ν 1/4 <b>π</b>			1-124-465-00		0. 22ur 0. 47uF	20%	50V 50V
R906	1-249-421-11	CARBON	2. 2K	5% 1/4W	F		1-136-155-00		0. 015uF	5%	50V

### PANEL

C3221   1-136-187-00   EILM	Ref. No.	Part No.	Descript	tion		Remark	Ref. No.	Part No.	Description				Remark
C2222   1-12-302-11 CERAMIC   CREATIC   C224F 20% 50V	C3213	1-124-464-11	ELECT	0. 22uF	20%	50V			< COIL >				
C3232   1-162-293-31   CERAMIC   820PF   10% 50V	C3222	1-162-302-11	CERAMIC	0. 0022uF	30%	16V	L511	1-410-521-11			I		
C3233   1-124-464-11   ELECT									( IRANSISIOR	,			
CASON   1-568-802-11 SOCKET, CONNECTOR 19P (AEP, LIK, G, IT, EE)   CASON   1-568-802-11 SOCKET, CONNECTOR 19P (AEP, LIK, G, IT, EE)   CASON   1-568-8038-11 SOCKET, CONNECTOR 19P (AEP, LIK, G, IT, EE)   CASON   CA							Q601	8-729-422-57	TRANSISTOR	UN4111			
CKS01													
CREATED   1-568-802-11   SOCKET, CONNECTOR 1PP (ARP, UK, G, IT, EE)			< CONNE	CTOR >							HDD		
1-568-838-11 SOCKET, CONNECTOR 21P (E, AUS, PX, MX, AP)	CN501	1-568-802-11	SOCKET	CONNECTOR 10P (AF	PIKG	IT EE)							
Color   Colo													
Dec			< DIODE	>									
Deciding   Section   Sec			\ DIODE	,									
DS11	D503	8-719-987-63	DIODE	1N4148M									
Decoration   Section   S	D511			1N4148M									
Dec   Ray													
D611   8-719-058-04 D10DE   SEL5223S-TP15 (EFFECT)				•		,							
Deli	D602	8-719-058-03	DIODE	SEL5423E-TP15 (TU	NER/BANI	D)							
D612 8-719-058-04 D10DE SEL5223S-TP15 (ROCK, GAME) D613 8-719-058-04 D10DE SEL5223S-TP15 (DCAZC, STADIUM) SEL5223S-TP15 (DCA	DC11	0 710 050 04	DIODE	ODIE9990 TOLE (DD	DDCT)								
D613 8-719-058-04 DIODE SEL5223S-TP15 (JAZZ STADIUM) D615 8-719-058-04 DIODE SEL5223S-TP15 (JAZZ STADIUM) D616 8-719-058-04 DIODE SEL5223S-TP15 (JAZZ STADIUM) D617 8-719-058-04 DIODE SEL5223S-TP15 (SALSA, CHURCH) D618 8-719-058-04 DIODE SEL5223S-TP15 (MORE 5) D619 8-719-058-04 DIODE SEL5223S-TP15 (MORE 5) D620 8-719-058-04 DIODE SEL5223S-TP15 (SELECT 5) D620 8-719-058-04 DIODE SEL5223S-TP15 (SELECT 5) D620 8-719-987-63 DIODE IN4148M D3022 8-719-987-63 DIODE IN4148M D3022 8-719-987-63 DIODE IN4148M D3023 8-719-987-63 DIODE IN4148M D3024 8-719-987-63 DIODE IN4148M D3201 8-719-987-63 DIODE IN4148M D3221 8-719-987-63 DIODE IN4148M D322 8-719-987-63 DIODE IN4148M D322 8-719-987-63 DIODE IN4148M D322						E)							
Delta   8-719-058-04 DIODE   SEL5223S-TP15 (JAZZ, STADIUM)   Delta   8-719-058-04 DIODE   SEL5223S-TP15 (CLASSIC, STUDIO)   SEL5223S-TP15 (SALSA, CHURCH)   Delta   8-719-058-04 DIODE   SEL5223S-TP15 (PILE)   Delta   8-719-058-04 DIODE   SEL5223S-TP15 (PILE)   Delta   8-719-058-04 DIODE   SEL5223S-TP15 (MORE 5)   Delta   8-719-058-04 DIODE   SEL5223S-TP15 (MORE 5)   SEL5223S-TP15 (MORE 5)   Delta   8-719-058-04 DIODE   SEL5223S-TP15 (SELECT 5)   SEL5223S-TP15 (MORE							<b>W</b> 000	0 123 113 10	TRANSTSTOR	20N1110	111.12		
D615   8-719-058-04 DIODE   SEL5223S-TP15 (CLASSIC, STUDIO)   D616   8-719-058-04 DIODE   SEL5223S-TP15 (SALSA, CHURCH)   SEL5223S-TP15 (SALSA)   SEL5223S-TP15 (SAL							Q634	8-729-119-76	TRANSISTOR	2SA1175-	HFE		
Delia	D615	8-719-058-04	DIODE	SEL5223S-TP15 (CL	ASSIC, S	STUDIO)	Q636	8-729-119-78	TRANSISTOR				
D617   8-719-058-04 D10DE   SEL5223S-TP15 (P FILE)   D618   8-719-058-04 D10DE   SEL5223S-TP15 (MORE 5)   SEL5223S-TP15 (SURGE 7)   SEL5223S-TP15													
D618						URCH)							
D619				,			Q3152	8-729-903-02	TRANSISTOR	DTA143XS			
D620									/ DECICTOR \				
R501   1-249-419-11   CARBON   1.5K   5K   1/4W   F   D3026   8-719-987-63   D10DE   N4148M   R503   1-249-401-11   CARBON   1.5K   5K   1/4W   F   D3027   8-719-987-63   D10DE   N4148M   R504   1-247-807-31   CARBON   1.5K   5K   1/4W   F   D3028   8-719-987-63   D10DE   N4148M   R505   1-249-407-11   CARBON   150   5K   1/4W   F   D3029   8-719-987-63   D10DE   N4148M   R505   1-249-407-11   CARBON   150   5K   1/4W   F   D3201   8-719-987-63   D10DE   N4148M   R505   1-249-407-11   CARBON   150   5K   1/4W   F   D3201   8-719-987-63   D10DE   N4148M   R507   1-247-815-91   CARBON   220   5K   1/4W   F   D3221   8-719-987-63   D10DE   N4148M   R508   1-249-411-11   CARBON   330   5K   1/4W   F   D3231   8-719-987-63   D10DE   N4148M   R509   1-249-413-11   CARBON   470   5K   1/4W   F   D3231   8-719-987-63   D10DE   N4148M   R509   1-249-415-11   CARBON   680   5K   1/4W   F   D3241   8-719-987-63   D10DE   N4148M   R510   1-249-415-11   CARBON   1K   5K   1/4W   F   D3242   8-719-987-63   D10DE   N4148M   R510   1-249-415-11   CARBON   1K   5K   1/4W   F   D3242   8-719-987-63   D10DE   N4148M   R510   1-249-415-11   CARBON   1K   5K   1/4W   F   D3242   8-719-987-63   D10DE   N4148M   R510   1-249-417-11   CARBON   1K   5K   1/4W   F   D3242   8-719-987-63   D10DE   N4148M   R510   1-249-417-11   CARBON   1K   5K   1/4W   F   D3242   8-719-987-63   D10DE   N4148M   R510   1-249-417-11   CARBON   1K   5K   1/4W   F   D3242   8-719-987-63   D10DE   N4148M   R510   1-249-417-11   CARBON   1K   5K   1/4W   F   D3242   8-719-987-63   D10DE   D10D				·					< RESISION >				
D627   8-719-058-04   D10DE   SEL5223S-TP15   (SUPER WOOFER)   R502   1-249-401-11   CARBON   47   5%   1/4W   F   D3026   8-719-987-63   D10DE   IN4148M   R503   1-249-403-11   CARBON   68   5%   1/4W   F   D3027   8-719-987-63   D10DE   IN4148M   R504   1-247-807-31   CARBON   100   5%   1/4W   F   D3028   8-719-987-63   D10DE   IN4148M   R505   1-249-407-11   CARBON   150   5%   1/4W   F   D3029   8-719-987-63   D10DE   IN4148M   R505   1-249-407-11   CARBON   150   5%   1/4W   F   D3201   8-719-987-63   D10DE   IN4148M   R508   1-249-407-11   CARBON   220   5%   1/4W   F   D3221   8-719-987-63   D10DE   IN4148M   R508   1-249-411-11   CARBON   330   5%   1/4W   F   D3221   8-719-987-63   D10DE   IN4148M   R508   1-249-411-11   CARBON   470   5%   1/4W   F   D3241   8-719-987-63   D10DE   IN4148M   R509   1-249-415-11   CARBON   470   5%   1/4W   F   D3241   8-719-987-63   D10DE   IN4148M   R501   1-249-415-11   CARBON   1/4W   F   D3242   8-719-987-63   D10DE   IN4148M   R501   1-249-415-11   CARBON   1/4W   F   R511   1-249-419-11   CARBON   1/4W   F   R512   1-249-407-11   CARBON   1/4W   F   R513   1-249-407-11   CARBON   1/4W   F   R514   1-249-407-11   CARBON   1/4W   F   R515   1-249-407-11   CARBON   1/4W   F   R520   1-247-807-31   CARBON   1/50   5%   1/4W   F   R520   1-247-807-31   CARBON   1/50   5%   1/4W   F   R520   1-247-807-31   CARBON   1/50   5%   1/4W   F   R520   1-249-407-11   CARBON   1/50   5%   1/4	D020	0 113 030 04	DIODL	ODD02200 1110 (OD	DDC1 0)		R501	1-249-419-11	CARBON	1. 5K	5%	1/4W	F
D3027   8-719-987-63 D10DE   1N4148M   R504   1-247-807-31 CARBON   100   5%   1/4₩   F   D3028   8-719-987-63 D10DE   1N4148M   R505   1-249-407-11 CARBON   150   5%   1/4₩   F   D3201   8-719-987-63 D10DE   1N4148M   R506   1-249-407-11 CARBON   150   5%   1/4₩   F   D3201   8-719-987-63 D10DE   1N4148M   R507   1-247-815-91 CARBON   220   5%   1/4₩   D3211   8-719-987-63 D10DE   1N4148M   R508   1-249-411-11 CARBON   330   5%   1/4₩   F   D3201   8-719-987-63 D10DE   1N4148M   R508   1-249-411-11 CARBON   470   5%   1/4₩   F   D3231   8-719-987-63 D10DE   1N4148M   R509   1-249-413-11 CARBON   680   5%   1/4₩   F   D3241   8-719-987-63 D10DE   1N4148M   R510   1-249-415-11 CARBON   680   5%   1/4₩   F   D3242   8-719-987-63 D10DE   1N4148M   R511   1-249-417-11 CARBON   1.5K   5%   1/4₩   F   D3242   8-719-987-63 D10DE   1N4148M   R511   1-249-417-11 CARBON   1.5K   5%   1/4₩   F   R518   1-249-401-11 CARBON   1.5K   5%   1/4₩   F   R519   1-249-403-11 CARBON   68   5%   1/4₩   F   R520   1-247-807-31 CARBON   100   5%   1/4₩   F   R520   1-247-807-31 CARBON   150   5%   1/4₩   F   R521   1-249-407-11 CARBON   150   5%   1/4₩   F   R521   1-249-413-11 CARBON   470   5%   1/4₩   F   R521   1-249-413-11 CAR	D627	8-719-058-04	DIODE	SEL5223S-TP15 (SU	PER WOOI	FER)							
D3028   8-719-987-63 D10DE   1N4148M   R505   1-249-407-11   CARBON   150   5%   1/4W   F	D3026						R503	1-249-403-11	CARBON	68	5%	1/4W	F
D3029   8-719-987-63   DIODE   IN4148M   R506   1-249-407-11   CARBON   150   5%   1/4W   F   D3201   8-719-987-63   DIODE   IN4148M   R507   1-247-815-91   CARBON   220   5%   1/4W   D3211   8-719-987-63   DIODE   IN4148M   R508   1-249-411-11   CARBON   330   5%   1/4W   F   D3231   8-719-987-63   DIODE   IN4148M   R509   1-249-413-11   CARBON   470   5%   1/4W   F   D3231   8-719-987-63   DIODE   IN4148M   R510   1-249-415-11   CARBON   680   5%   1/4W   F   D3241   8-719-987-63   DIODE   IN4148M   R510   1-249-415-11   CARBON   1K   5%   1/4W   F   D3242   8-719-987-63   DIODE   IN4148M   R511   1-249-417-11   CARBON   1.5K   5%   1/4W   F   R518   1-249-401-11   CARBON   1.5K   5%   1/4W   F   R518   1-249-401-11   CARBON   47   5%   1/4W   F   R518   1-249-403-11   CARBON   47   5%   1/4W   F   R520   1-247-807-31   CARBON   100   5%   1/4W   F   R520   1-247-807-31   CARBON   150   5%   1/4W   F   R520   1-249-407-11   CARBON   150   5%   1/4W   F   R520   1-249-413-11   CARBON   150   5%   1/4W   F   R520   1-249-													
R506   1-249-407-11   CARBON   150   5%   1/4W   F							R505	1-249-407-11	CARBON	150	5%	1/4W	F
D3201 8-719-987-63 DIODE	D3029	0-119-901-03	DIODE	1N4140M			R506	1-249-407-11	CARRON	150	592	1 / AW	r
D3211 8-719-987-63 DIODE	D3201	8-719-987-63	DIODE	1N4148M									Г
D3221 8-719-987-63 DIODE													
D3241 8-719-987-63 DIODE	D3221	8-719-987-63	DIODE	1N4148M			R509	1-249-413-11	CARBON				F
R511   1-249-417-11   CARBON   1K   5%   1/4W   F   R517   1-249-419-11   CARBON   1.5K   5%   1/4W   F   R518   1-249-401-11   CARBON   1.5K   5%   1/4W   F   R518   1-249-401-11   CARBON   47   5%   1/4W   F   R518   1-249-401-11   CARBON   68   5%   1/4W   F   R520   1-247-807-31   CARBON   100   5%   1/4W   F   R520   1-247-807-31   CARBON   100   5%   1/4W   F   R520   1-249-407-11   CARBON   150   5%   1/4W   F   R522   1-249-407-11   CARBON   150   5%   1/4W   F   R523   1-247-815-91   CARBON   150   5%   1/4W   F   R523   1-247-815-91   CARBON   220   5%   1/4W   F   R520   8-759-339-53   C   GP1U28XB (R)   R524   1-249-411-11   CARBON   330   5%   1/4W   F   R526   8-759-140-53   C   UPD4053BC   R526   1-249-413-11   CARBON   470   5%   1/4W   F   R527   1-249-419-11   CARBON   1.5K   5%   1/4W   F   R528   1-249-401-11   CARBON   470   5%   1/4W   F   R528   1/489-401-11   CARBON   470   5%   1/4W   F   R							R510	1-249-415-11	CARBON	680	5%	1/4W	F
D3242 8-719-987-63 DIODE	D3241	8-719-987-63	DIODE	1N4148M			DE11	1 040 415 11	CIPPON				_
R518   1-249-401-11 CARBON   47   5%   1/4W   F   R519   1-249-403-11 CARBON   68   5%   1/4W   F   R520   1-247-807-31 CARBON   100   5%   1/4W   F   R520   1-247-807-31 CARBON   100   5%   1/4W   F   R520   1-247-807-31 CARBON   100   5%   1/4W   F   R520   1-247-807-31 CARBON   150   5%   1/4W   F   R521   1-249-407-11 CARBON   150   5%   1/4W   F   R523   1-247-815-91 CARBON   150   5%   1/4W   F   R523   1-247-815-91 CARBON   150   5%   1/4W   F   R520   1-249-411-11 CARBON   150   5%   1/4W   F   R520   1-249-413-11 CARBON   150   5%   1/4W   F   R520   1-249-413-11 CARBON   170   1/4W   F   R520   1-249-413-11 CARBON   170   1/4W   F   R520   1-249-413-11 CARBON   170   1/4W   F   R527   1-249-413-11 CARBON   170   1/4W   F   R528   1-249-401-11 CARBON   170   1/4W   R528   1/4W   F   R	D2242	9_710_097_63	DIODE	1NA1A9M									
R519   1-249-403-11 CARBON   68   5%   1/4W   F   R520   1-247-807-31 CARBON   100   5%   1/4W   F   R520   1-247-807-31 CARBON   100   5%   1/4W   F   R520   1-247-807-31 CARBON   100   5%   1/4W   F   R520   1-247-807-31 CARBON   150   5%   1/4W   F   R521   1-249-407-11 CARBON   150   5%   1/4W   F   R523   1-247-815-91 CARBON   150   5%   1/4W   F   R523   1-247-815-91 CARBON   150   5%   1/4W   F   R520   1-249-411-11 CARBON   150   5%   1/4W   R520   1-249-411-11 CARBON   150   5%   1/4W   R520   1-249-413-11 CARBON   170   1/4W   R520   1-249-413-11 CARBON   170   1/4W   F   R520   1-249-413-11 CARBON   1/4W   F   R520   1/4W   R520   1/4W   F   R520   1/4W	D3444	0-115-501-03	DIODE	11414041									
R520   1-247-807-31 CARBON   100   5%   1/4W   F   F   F   F   F   F   F   F   F			< FLUORE	SCENT INDICATOR >									
R521   1-249-407-11 CARBON   150   5%   1/4W   F   R522   1-249-407-11 CARBON   150   5%   1/4W   F   R522   1-249-407-11 CARBON   150   5%   1/4W   F   R523   1-247-815-91 CARBON   220   5%   1/4W   F   R523   1-247-815-91 CARBON   220   5%   1/4W   R525   1-249-411-11 CARBON   330   5%   1/4W   F   R526   1-249-413-11 CARBON   470   5%   1/4W   F   R526   1-249-413-11 CARBON   R526   1-249-415-11 CARBON   1.5K   5%   1/4W   F   R527   1-249-419-11 CARBON   1.5K   5%   1/4W   F   R528   1-249-401-11 CARBON   470   5%   1/4W   F   R528   1-249-401-11 CARBON   1.5K   5%   1/4W   F   R528   1-249-401-11 CARBON   470   5%   1/4W   F   R528   1/4W   R528   1/4W   R528   1/4W   R528   1/4W   R528   1/4W   R528   1													_
R522   1-249-407-11 CARBON   150   5%   1/4W   F   R523   1-247-815-91 CARBON   220   5%   1/4W   F   R523   1-247-815-91 CARBON   220   5%   1/4W   R523   1-247-815-91 CARBON   330   5%   1/4W   R525   1-249-411-11 CARBON   330   5%   1/4W   F   R525   1-249-413-11 CARBON   470   5%   1/4W   F   R526   1-249-413-11 CARBON   680   5%   1/4W   F   R527   1-249-419-11 CARBON   1.5K   5%   1/4W   F   R528   1-249-401-11 CARBON   47   5%   1/4W   R528   1/4W	FL501	1-517-490-21	INDICATO	OR TUBU, FLUORESCE	NT								
R523   1-247-815-91 CARBON   220   5%   1/4W   1/4W   1/502   8-759-375-43   1/4W   1/502   8-759-339-53   1/4W   1/502   8-759-339-53   1/4W   1/503   8-759-140-53   1/4W   1/503   8-759-140-53   1/4W   1/503   1/504													
R524   1-249-411-11 CARBON   330   5%   1/4W   R525   1-249-413-11 CARBON   470   5%   1/4W   F   R526   R527   1-249-415-11 CARBON   680   5%   1/4W   F   R527   1-249-415-11 CARBON   1.5K   5%   1/4W   F   R528   1-249-415-11 CARBON   1.5K   5%   1/4W   F   R528   1-249-401-11 CARBON   470   5%   1/4W   F   R527   1-249-415-11 CARBON   1.5K   5%   1/4W   F   R528   1-249-401-11 CARBON   470   5%   1/4W   F   R528   1/4W   R528   1/			< 1C >										F
R525   1-249-413-11 CARBON   470   5%   1/4W   F   1/2503   8-759-140-53   IC   upd4053BC   UPD4053BC   R526   1-249-415-11 CARBON   680   5%   1/4W   F   1/2504   8-759-916-14   IC   SN74HC04AN   R526   1-249-419-11 CARBON   1.5K   5%   1/4W   F   1/249-419-11 CARBON   1.5K   5%   1/4W   F   1/249-401-11 CARBON   47   5%   1/249-401-11 CARBON   47	IC501	8-759-375-43	IC AST	00204-012-3R4									
IC503 8-759-140-53 IC uPD4053BC IC504 8-759-916-14 IC SN74HC04AN  R526 1-249-415-11 CARBON 680 5% 1/4\( F \) R527 1-249-419-11 CARBON 1.5\( F \) R528 1-249-401-11 CARBON 47 5% 1/4\( F \) R528 1-249-401-11 CARBON 47 5% 1/4\( F \)													F
R526   1-249-415-11 CARBON   680 5% 1/4W F   R527   1-249-419-11 CARBON   1.5K 5% 1/4W F   R528   1-249-401-11 CARBON   47 5% 1/4W F   R528   1-249-401-11 CARBON   47 5% 1/4W F   R528   1-249-401-11 CARBON   1.5K 5% 1/4W F   R528   1-249-401-11 CARBON   1.5K 5% 1/4W F   R528   1-249-401-11 CARBON   1.5K 5% 1/4W F   1.5K 5% 1/				,		-		110 11		110	J,0	A/ 3M	•
R527 1-249-419-11 CARBON 1.5K 5% 1/4W F R528 1-249-401-11 CARBON 47 5% 1/4W F	IC504	8-759-916-14					R526	1-249-415-11	CARBON	680	5%	1/4₩	F
								1-249-419-11	CARBON	1.5K		1/4₩	F
R529 1-249-403-11 CARBON 68 5% 1/4W F													
						l	R529	1-249-403-11	CARBON	68	5%	1/4W	F



Pof No	Dant No	Description				Domanie I	Pof No	Dant No	Docarintion				Domonic
Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
R530	1-247-807-31	CARBON	100	5%	1/4₩			1-247-903-00		1M	5%	1/4W	
DE 21	1-249-407-11	CADDON	150	E <b>0</b> /	1 / AW		R3015	1-249-429-11	CARBON	10K	5%	1/4W	
R531 R532	1-249-407-11		150 150	5% 5%	1/4W	r F	D2010	1-249-429-11	CADDON	10V	E <b>0</b> /	1 / / W	
R548	1-249-419-11		1.5K	5%	1/4W 1/4W			1-249-429-11		10K 10K	5% 5%	1/4W 1/4W	
R549	1-247-807-31		1. 3k 100	5%	1/4W	r		1-249-429-11		10K	5%	1/4W	
R550	1-249-407-11		150	5%	1/4W	r I		1-249-429-11		10K	5%	1/4W	
1.550	1-245-401-11	CARDON	130	3/0	1/4	r		1-249-429-11		10K	5%	1/4W	
R551	1-249-407-11	CARRON	150	5%	1/4W	a	10020	124542511	CARDON	IUK	3/0	1/4#	
R552	1-247-815-91		220	5%	1/4W	1	R3024	1-249-429-11	CARBON	10K	5%	1/4W	
R553	1-249-429-11		10K	5%	1/4₩			1-249-429-11		10K	5%	1/4₩	
R554	1-249-441-11		100K	5%	1/4W			1-249-429-11		10K	5%	1/4W	
R564	1-249-419-11		1.5K	5%	1/4W	F		1-249-429-11		10K	5%	1/4W	
				0.0	-,	- I		1-249-429-11		10K	5%	1/4W	
R565	1-247-807-31	CARBON	100	5%	1/4W						070	2, 1.,	
R566	1-249-407-11		150	5%	1/4W	F	R3042	1-249-423-11	CARBON	3. 3K	5%	1/4W	F
R567	1-249-407-11		150	5%	1/4W			1-249-429-11		10K	5%	1/4W	-
R586	1-247-815-91		220	5%	1/4W	_		1-249-429-11		10K	5%	1/4W	
R588	1-247-815-91		220	5%	1/4W			1-249-429-11		10K	5%	1/4₩	
					_,			1-249-429-11		10K	5%	1/4W	
R591	1-249-403-11	CARBON	68	5%	1/4₩	F						-,	
R592	1-249-401-11	CARBON	47	<b>5%</b>		F	R3087	1-249-441-11	CARBON	100K	5%	1/4W	
R593	1-249-403-11	CARBON	68	5%	1/4₩	F	R3110	1-247-807-31	CARBON	100	5%	1/4W	
R594	1-249-401-11	CARBON	47	5%	1/4W	F	R3115	1-247-807-31	CARBON	100	5%	1/4W	
R611	1-249-429-11	CARBON	10K	<b>5%</b> .	1/4₩		R3122	1-247-807-31	CARBON	100	5%	1/4W	
							R3123	1-247-807-31	CARBON	100	5%	1/4₩	
R612	1-249-421-11	CARBON	2. 2K	5%	1/4W	F							
R613	1-249-429-11	CARBON	10K	5%	1/4₩		R3124	1-247-807-31	CARBON	100	5%	1/4W	
R614	1-249-421-11		2. 2K	<b>5%</b>	1/4W	F	R3138	1-247-807-31	CARBON	100	5%	1/4W	
R633	1-249-407-11		150	5%	1/4W		R3201	1-249-411-11	CARBON	330	<b>5%</b>	1/4W	
R634	1-249-407-11	CARBON	150	<b>5%</b>	1/4₩	F	R3202	1-249-437-11	CARBON	47K	5%	1/4W	
R635	1-249-407-11		150	5%	1/4W			1-247-895-91		470K	5%	1/4W	
R636	1-249-407-11		150	5%	1/4W			1-247-899-11		680K	5%	1/4W	
R637	1-249-407-11		150	5%	1/4W			1-249-411-11		330	5%	1/4₩	
R641	1-249-406-11		120	5%	1/4W	F	R3212	1-249-437-11	CARBON	47K	5%	1/4W	
R642	1-247-807-31	CARBON	100	5%	1/4W		20010	1 045 005 01	CARRON	450.5			
DC 40	1 047 007 01	CARRON	100	<b>50</b> /	1 / 4777			1-247-895-91		470K	5%	1/4W	
R643	1-247-807-31		100	5% 5°	1/4W	ъ		1-247-899-11		680K	5%	1/4W	
R644 R645	1-249-406-11 1-249-407-11		120 150	5% 5%	1/4W 1/4W	r F		1-249-411-11 1-249-437-11		330	5%	1/4W	
R646	1-249-407-11		120	5%	1/4W			1-249-437-11		47K 470K	5% 5%	1/4₩	
R648	1-249-425-11		4. 7K	5%	1/4W		Nozzo	1-241-053-51	CARDON	410h	376	1/4W	
11040	1 440 440 11	OMBON	7. III	J/0	1/4:11		R3224	1-247-899-11	CARRON	680K	5%	1/4W	
R649	1-249-425-11	CARRON	4.7K	5%	1/4W	F		1-247-807-31		100	5%	1/4W	
R650	1-249-425-11		4. 7K		1/4W			1-249-437-11		47K	5%	1/4W	
R651	1-249-425-11		4. 7K		1/4W			1-247-895-91			5 <b>%</b>	1/4W	
R652	1-249-425-11		4. 7K		1/4W			1-247-899-11			5%	1/4₩	
R656	1-249-425-11		4. 7K		1/4₩		110201	1 211 000 11	Childon	00011	0.0	1/11	
	***				-, •"		R3241	1-249-421-11	CARBON	2. 2K	5%	1/4W	F
R657	1-249-425-11	CARBON	4.7K	5%	1/4W	F		1-249-393-11		10	5%	1/4W	
R658	1-249-425-11		4. 7K		1/4W						5.4	-, •11	=
R659	1-249-425-11		4. 7K		1/4W				< SWITCH >				
R660	1-249-425-11		4.7K		1/4₩				- · · ·				
R661	1-249-425-11		4. 7K		1/4W		S501	1-554-303-21	SWITCH, TACTILE	(SYSTI	EM POWE	ER)	
							S502		SWITCH, TACTILE			•	
R698	1-249-393-11	CARBON	10	5%	1/4W	F	S503		SWITCH, TACTILE				
R700	1-249-393-11	CARBON	10	5%	1/4W		S504		SWITCH, TACTILE				
R875	1-247-815-91	CARBON	220	5%	1/4W		S506		SWITCH, TACTILE			MPX)	
				(E, A	AUS, PX,	, MX, AR)					(E, A	US, PX,	MX, AR)

### PANEL POWER AMP

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
S507		SWITCH, TACTILE		(ODE)		C1206	1-126-968-11	ELECT	100uF	20%	50V
S508		SWITCH, TACTILE					1-126-965-11		22uF	20%	50V
S509		SWITCH, TACTILE					1-136-495-11		0.068uF	5%	50V
S510 S511		SWITCH, TACTILE SWITCH, TACTILE				C1211	1-136-495-11 1-126-968-11	FILM	0.068uF 100uF	5% 20%	50V 50V
3311	1-554-505-21	Switch, Incline	( \			C1221	1-120-900-11	ELECI	100ur	20%	50 V
S517	1-554-303-21	SWITCH, TACTILE	(ENTER/NE	EXT)		C1223	1-126-968-11	ELECT	100uF	20%	50V
S518		SWITCH, TACTILE		(DEMO)		C1225	1-164-159-11	CERAMIC	0. 1uF		50V
S519	1-554-303-21	SWITCH, TACTILE	(REC)			01000	1 104 150 11	00011170		(AEP, UK,	G, IT, EE)
S520 S521	1-554-303-21	SWITCH, TACTILE SWITCH, TACTILE	(DAILY Z)			C1230	1-164-159-11	CERAMIC	0. 1uF	(AED IIV	50V
3321	1-554-505-21	Switch, Tacific	(DAILI I)			C1247	1-164-159-11	CERAMIC	0. 1uF	(AEF, UK,	G, IT, EE) 50V
S522		SWITCH, TACTILE						0	******	(AEP, UK,	G, IT, EE)
S525	1-554-303-21	SWITCH, TACTILE	(FUNCTION	I)		C1248	1-164-159-11	CERAMIC	0. 1uF		50 <b>V</b>
S526		SWITCH, TACTILE		RY)						(AEP, UK,	G, IT, EE)
S527 S528		SWITCH, TACTILE SWITCH, TACTILE				C1240	1-164-159-11	CEDAMIC	0. 1uF		50 <b>V</b>
3320	1-334-303-21	Switch, Incline	(FILE 2)			C1243	1-104-135-11	CERAMIC	0. Tur	(AEP. UK.	G, IT, EE)
S529	1-554-303-21	SWITCH, TACTILE	(FILE 3)			C1251	1-126-963-11	ELECT	4. 7uF	20%	50V
S530		SWITCH, TACTILE					1-102-824-00		470PF	5%	50 <b>V</b>
S531		SWITCH, TACTILE		ECT)			1-102-978-00		220PF	5%	50V
S532 S549		SWITCH, TACTILE SWITCH, TACTILE		WEED)		C1254	1-126-967-11	ELECT	47uF	20%	50V
3349	1-334-303-21	Switch, Incline	(SULEY MC	Oren)		C1255	1-126-967-11	ELECT	47uF	20%	50V
S550	1-554-303-21	SWITCH, TACTILE	(SURROUND	))			1-126-968-11		100uF	20%	50V
S551		SWITCH, TACTILE				1	1-136-495-11		0.068uF	5%	50 <b>V</b>
S552		SWITCH, TACTILE			r pp)		1-136-495-11		0.068uF	5%	50V
S553 S565	1-554-303-21	SWITCH, TACTILE SWITCH, TACTILE	(STEREO/N	', UK, G, II KONO)	i, ee <i>)</i>	C1291	1-130-781-00	FILM	0. 22uF	10%	100V
5500	1 004 000 21	Switch, Inclibe	(OTDREO) III	iono)		C1292	1-130-781-00	FILM	0. 22uF	10%	100V
S566	1-554-303-21	SWITCH, TACTILE	(TUNER ME	CMORY)		C1293	1-126-258-11	ELECT	4700uF	20%	56V
S567		SWITCH, TACTILE					1-126-258-11		4700uF	20%	56V
S568		SWITCH, TACTILE		i)		C1297	1-164-159-11	CERAMIC	0. 1uF	(ADD III	50V
S579	1-407-809-11	ENCODER, ROTARY	(VOLUME)			C1298	1-164-159-11	CERAMIC	0. 1uF	(AEP, UK,	G, IT, EE) 50V
		< VIBRATOR >				01200	1 101 100 11	CERTIFIC	o. rui	(AEP, UK,	G, IT, EE)
X3001	1-579-233-11	VIBRATOR, CERAM	IC (4MHz)			C1299	1-164-159-11	CERAMIC	0. 1uF	(ADD IIII	50V
******	******	******	*******	******	*****	C1301	1-126-963-11	FIFCT	4. 7uF	(AEP, UK, 20%	G, IT, EE) 50V
*********							1-102-824-00		470PF	5%	50V
	A-4389-210-A	POWER AMP BOARD	, COMPLETE	;			1-102-978-00		220PF	5%	50V
					G, IT, EE)	C1304	1-126-967-11	ELECT	47uF	20%	50V
		*********	*******	*******	******	CIRUE	1-126-967-11	FIFCT	47uF	20%	50V
	A-4389-212-A	POWER AMP BOARD	. COMPLETE	,			1-126-968-11		100uF	20% 20%	50V 50V
			•	E, AUS, PX	(, MX, AR)		1-126-965-11		22uF	20%	50V
		*******	*******	******	******		1-136-495-11		0.068uF	5%	50V
	1 507 770 01	TERMINAL DOLDE	CDOUND			C1311	1-136-495-11	FILM	0. 068uF	5%	50V
		TERMINAL BOARD, SCREW +BVTP 3X8				C1321	1-126-968-11	FLECT	100uF	20%	50V
	. 000 040 10	JOHON DITT ONO	111111111111111111111111111111111111111	•			1-126-968-11		100uF	20%	50V 50V
		< CAPACITOR >					1-164-159-11		0. 1uF	- 570	50V
			. = =							(AEP, UK,	G, IT, EE)
	1-126-963-11		4. 7uF	20%	50V	C1330	1-164-159-11	CERAMIC	0. 1uF	(ADD 197	50V
	1-136-171-00 1-102-978-00		0. 33uF 220PF	10% 5%	50V 50V	C1348	1-136-495-11	FILM	0. 068uF	(AEP, UK, 5%	G, IT, EE)
	1-126-967-11		47uF		50V	01040	1 100 499-11	1 1 Lift	v. voour		50V G, IT, EE)
	1-126-967-11		47uF		50V					,, 011,	-,, 56)

### **POWER AMP**

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description				Remark
C1348	1-164-159-21	CERAMIC	0. 1uF	(ADD IIII	50V		8-719-987-63					
C1349	1-136-495-11	FILM	0. 068uF	5%	G, IT, EE) 50V		8-719-987-63					
C1349	1-164-159-21	CERAMIC	0. 1uF		G, IT, EE) 50V G, IT, EE)	D1451	8-719-987-63 8-719-987-63 8-719-987-63	DIODE 1N41	48M			
	1-126-963-11		4. 7uF	20%	50V	D1453	8-719-987-63	DIODE 1N41	48M			
	1-136-171-00		0. 33uF	10%	50V		8-719-987-63					
	1-102-978-00 1-126-967-11		220PF 47uF	5% 20%	50V 50V		8-719-987-63 8-719-987-63					
	1-126-967-11		47uF	20%	50V	D1101	0 110 001 00	DIODE INT	10.01			
	1-126-968-11		100uF	20%	50V			< IC >				
	1-136-495-11		0.068uF	5%	50 <b>V</b>							
						IC1201	8-749-900-24	IC STK-416	2MK2			
C1361	1-136-495-11	FILM	0.068uF	5%	50V	1	8-749-900-24					
	1-136-495-11		0.068uF	5%	50V		8-759-111-68					
				(AEP, UK,	G, IT, EE)							
C1398	1-164-159-21	CERAMIC	0. 1uF		50V			< COIL >				
				(AEP, UK,	G, IT, EE)							
C1399	1-136-495-11	FILM	0.068uF	5%	50V	L1201	1-420-872-00	COIL, AIR-CO	RE			
				(AEP, UK,	G, IT, EE)	L1251	1-420-872-00	COIL, AIR-CO	RE			
C1399	1-164-159-21	CERAMIC	0. luF		50V	L1301	1-420-872-00	COIL, AIR-CO	RE			
				(AEP, UK,	G, IT, EE)	L1351	1-420-872-00	COIL, AIR-CO	RE			
	1-126-923-11		220uF	20%	10V			< TRANSISTOR	>			
	1-126-923-11		220uF	20%	10V							
C1422	1-126-923-11	ELECT	220uF	20%	10V	Q1201	8-729-140-84	TRANSISTOR	2SC1841-	PAFAEA		
	1-124-925-11		2. 2uF	20%	100V		8-729-140-84		2SC1841-	PAFAEA		
C1424	1-126-933-11	ELECT	100uF	20%	10V		8-729-140-84		2SC1841-	PAFAEA		
							8-729-140-84		2SC1841-			
	1-126-964-11		10uF	20%	50V	Q1421	8-729-900-63	TRANSISTOR	DTA124ES			
C1492	1-136-157-00	FILM	0. 022uF	5%	50V							
				(AEP, UK,	G, IT, EE)		8-729-900-65		DTA114ES			
C1492	1-164-159-21	CERAMIC	0. 1uF	(1.DD 1	50V		8-729-119-78		2SC2785-			
01.400	1 100 155 00	D	0 000 B		G, IT, EE)		8-729-900-80		DTC114ES			
C1493	1-136-157-00	FILM	0. 022uF	5%	50V		8-729-119-78		2SC2785-			
				(AEP, UK,	G, IT, EE)	Q1453	8-729-119-78	TRANSISTOR	2SC2785-	HFE		
		/ COMMECTOD >						< RESISTOR >				
		< CONNECTOR >						( KESISIUR )				
* CN1201	1-766-957-11	CONNECTOR, BOAR	D TO BOAR	20P		R1201	1-249-417-11	CARRON	1K	5%	1/4W	E
7 0111201	1 100 001 11	COMPLETON, DOM	D 10 DOM	1D 201			1-249-437-11		47K	5%	1/4W	1
		< DIODE >					1-249-417-11		1K	5%	1/4W	F
		. 21002					1-249-437-11		47K	5%	1/4W	•
D1201	8-719-987-63	DIODE 1N4148M					1-249-425-11		4. 7K		1/4W	F
	8-719-987-63										-, -,,	
	8-719-987-63					R1206	1-249-425-11	CARBON	4.7K	5%	1/4W	F
D1291	8-719-302-38	DIODE RBV-602	-01				1-249-425-11		4.7K		1/4W	F
D1301	8-719-987-63	DIODE 1N4148M				R1208	1-249-425-11	CARBON	4.7K	5%	1/4W	F
						<u></u> 1.09 <b>1</b> 0	1-212-881-11	FUSIBLE	100	5%	1/4W	F
D1304	8-719-987-63	DIODE 1N4148M				<u></u> <b>1 1 1 1 1 1 1 1 1 1</b>	1-208-602-11	WIREWOUND	0. 22	10%	2₩	F
	8-719-987-63											
	8-719-987-63						1-249-417-11		1K	5%	1/4W	F
	8-719-987-63						1-249-431-11		15K	5%	1/4W	
D1421	8-719-987-63	DIODE 1N4148M					1-249-441-11		100K		1/4W	_
D	0 510 005 00	DIODD 19111101					1-249-421-11		2. 2K		1/4W	
	8-719-987-63					K1215	1-249-421-11	CARBON	2. 2K	5%	1/4W	F
	8-719-987-63					D1010	1 040 401 11	CADDON	0.017	F@	1 / /***	D
D1435	8-719-987-63	DIODE 1N4148M				K1Z16	1-249-421-11	CARBON	2. 2K	5%	1/4W	r'
								[				

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.

Replace only with part number specified.

## **POWER AMP**

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
D1917	1-249-421-11	CADDON	2. 2K	E0/	1/4W	E.	D1220	1-249-389-11	CADDON	4. 7	5%	1/4W	D.
	1-249-421-11		2. 2n 22		1/4W	Г		1-249-389-11		4.7	5%	1/4W	
			22				K1321	1-249-369-11	CARDON	4. /	D76	1/4	Г
	1-247-791-91			5%	1/4W 1/4W	ъ	D1220	1 040 400 11	CADDON	1.017	rov.	1 / 437	
KIZZU	1-249-389-11	CARBUN	4. 7	5%	1/47	r		1-249-429-11		10K		1/4W	г.
D1001	1 040 200 11	CADDON	4.7	F6/	1 / 430	Б	K1348	1-249-385-11	CARBON	2. 2		1/6W	
	1-249-389-11		4.7	5 <b>%</b>	1/4W	r	D1040	1 040 005 11	CADDON	0 0			IT, EE)
	1-249-429-11				1/4W	_	K1349	1-249-385-11	CARBON	2. 2		1/6₩	
R1Z48	1-249-385-11	CARBON	2. 2	5%	1/6W		D1051		O.L.D.D.O.L				IT, EE)
D1040	1 040 005 11	O L D D O L				, IT, EE)		1-249-417-11		1K	5%	1/4₩	F
R1249	1-249-385-11	CARBON	2. 2		1/6₩		K1352	1-249-437-11	CARBON	47K	5%	1/4W	
D1051	1 040 415 11	CARRON	1 17			, IT, EE)	D1050	1 040 417 11	CIPPON				_
R1251	1-249-417-11	CARBON	1K	5%	1/4W	F		1-249-417-11		1K	5%	1/4W	F
								1-249-437-11		47K	5%	1/4₩	_
	1-249-437-11				1/4W	_		1-249-425-11		4. 7K		1/4W	
	1-249-413-11				1/4W	F		1-249-425-11		4. 7K		1/4W	
	1-249-437-11				1/4W	_	R1357	1-249-425-11	CARBON	4.7K	5%	1/4W	F
	1-249-425-11		4. 7K		1/4W		21050		0.1000.				_
R1256	1-249-425-11	CARBON	4.7K	5%	1/4W	F		1-249-425-11		4. 7K		1/4W	
						_		1-212-881-11		100		1/4W	
	1-249-425-11		4. 7K		1/4W			1-208-602-11		0. 22		2W	-
	1-249-425-11		4.7K		1/4W			1-249-417-11		1K		1/4W	F
	1-212-881-11		100		1/4W		R1362	1-249-431-11	CARBON	15K	5%	1/4₩	
	1-208-602-11		0. 22			F							
R1261	1-249-417-11	CARBON	1K	5%	1/4W	F		1-249-441-11		100K		1/4W	
								1-247-791-91		22		1/4W	
	1-249-431-11				1/4W			1-247-791-91		22		1/4W	
	1-249-441-11		100K		1/4W			1-249-389-11		4. 7		1/4W	
	1-247-791-91		22		1/4W		R1371	1-249-389-11	CARBON	4.7	5%	1/4W	F
	1-247-791-91				1/4W								
R1270	1-249-389-11	CARBON	4. 7	5%	1/4W	F		1-215-889-00		330		2₩	
							R1398	1-249-385-11	CARBON	2. 2		1/6W	
	1-249-389-11				1/4W								IT, EE)
	1-215-889-00					F	R1399	1-249-385-11	CARBON	2. 2		1/6W	
R1298	1-249-385-11	CARBON	2. 2		1/6₩								IT, EE)
	- 0.0 00	0.1000.				IT, EE)		1-249-421-11		2. 2K		1/4W	F
R1299	1-249-385-11	CARBON	2. 2		1/6W		R1402	1-249-429-11	CARBON	10K	5%	1/4W	
						IT, EE)							
R1301	1-249-417-11	CARBON	1K	5%	1/4W	F		1-249-441-11		100K		1/4W	_
24000		0.10001						1-249-429-11				1/4W	
	1-249-437-11				1/4W	_		1-249-425-11		4.7K		1/4W	F
	1-249-413-11				1/4W	F		1-249-429-11				1/4W	
	1-249-437-11				1/4W	_	R1424	1-249-441-11	CARBON	100K	5%	1/4W	
	1-249-425-11		4. 7K		1/4W		D1 40F	1 047 701 01	CARRON	00	F0/	1 ( 177	
K1306	1-249-425-11	CARBON	4. 7K	<b>5%</b>	1/4W	r		1-247-791-91		22		1/4W	
D1007	1 040 405 11	CADDON	4 777	rα	1 / / 107	_		1-249-435-11				1/4W	ъ
	1-249-425-11		4. 7K		1/4W			1-249-425-11		4. 7K		1/4W	
	1-249-425-11		4. 7K		1/4W			1-249-425-11		4. 7K		1/4W	r
	1-212-881-11				1/4W		R1429	1-249-441-11	CARBON	100K	5%	1/4W	
	1-208-602-11		0. 22			F	21.401						_
к1311	1-249-417-11	CARBUN	1K	5%	1/4W	r		1-249-425-11		4. 7K		1/4W	
D1010	1 040 401 11	CADDON	1517	-n/	1 / / 177			1-249-425-11		4. 7K		1/4W	ř
	1-249-431-11				1/4W			1-249-437-11				1/4W	
	1-249-441-11		100K		1/4W	_		1-249-439-11				1/4W	
	1-249-421-11		2. 2K		1/4W		R1443	1-249-437-11	CARBON	47K	5%	1/4W	
	1-249-421-11		2. 2K		1/4W		<b>***</b> * * * *		auppor:				
K1316	1-249-421-11	CARBON	2. 2K	5%	1/4W	r		1-249-439-11				1/4W	_
D1018	1 040 401 11	O L D D O N	0 0"	<b>-0</b> /	1 / /	_		1-249-413-11				1/4W	F
	1-249-421-11		2. 2K		1/4W	r		1-249-429-11				1/4W	
	1-247-791-91				1/4W	1		1-249-429-11				1/4W	<b>D</b>
K1319	1-247-791-91	CARBUN	22	5%	1/4W	1	K1454	1-249-417-11	CARBON	1K	5%	1/4₩	r

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.

Replace only with part number specified.

# POWER AMP TABLE SENSOR TC CONTROL TC SW

													_
Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
R1455	1-249-417-11	CARBON	1K	5%	1/4W	F	R546	1-249-427-11	CARBON	6.8K	5%	1/4W	F
	1-249-429-11		10K	5%	1/4W		R547	1-249-431-11	CARBON	15K	5%	1/4W	
	1-260-091-11 1-260-091-11		220 220	5% 5%	1/2W 1/2W		R672	1-247-815-91	CARRON	220	5%	1/4W	
	1-260-091-11		220	5%	1/2W		R673	1-247-815-91		220	5%	1/4W	
	1-260-091-11 1-247-863-91		220 22K	5% 5%	1/2W 1/4W				< SWITCH >				
	1-247-863-91		22K	5%	1/4W		S539	1-554-303-21	SWITCH, TACTILE		-) (DECK	B)	
							S540	1-554-303-21	SWITCH, TACTILE		() (DECK	B)	
		< RELAY >					S541 S542		SWITCH, TACTILE SWITCH, TACTILE				
RY120	1 1-515-920-11	RELAY (24V)					S542 S543	1-554-303-21	SWITCH, TACTILE	$(\Box)$	DECK E	) :)	
	1 1-515-920-11												
		/ TEDMINAL >					S544		SWITCH, TACTILE SWITCH, TACTILE		•		
		< TERMINAL >					S545 S546		SWITCH, TACTILE				
TM120	1 1-694-055-11	TERMINAL BOARD	(SP)				S547		SWITCH, TACTILE				
						SPEAKER)	S548	1-554-303-21	SWITCH, TACTILE	<b>(</b>	(DECK A	)	
TM1203	3 1-694-053-11	TERMINAL BOARD	(SUPER	R WOOFE	CR)		******	******	******	*****	*****	*****	*****
******	******	******	*****	*****	*****	*****	*******	***********	*************	*****	*****	*****	*****
							*	1-659-412-11					
*	1-659-058-12	TABLE SENSOR B							******				
		*****	****						< CONNECTOR >				
		< IC >											
10202	8-740-024-18	PHOTO INTERRUP	וסם סמי	1301			* CN503	1-568-945-11	PIN, CONNECTOR	7P			
10202	0 143 324 10	THOTO TWIENTED	ILK KI	1001					< DIODE >				
		< RESISTOR >					2000		D	D17.7.1	(SE)		
R207	1-249-416-11	CARRON	820	5%	1/4W	F	D628 D629	8-719-058-17 8-719-057-09	DIODE LNJ401N DIODE LNJ801L			)	
N201	1 243 410 11	CHILDON	020	070	1/ 11	•	0000	0 110 001 00	DIODE ENGOGIE	1 2011	( ILDC	,	
******	*********	******	*****	*****	*****	*****			< RESISTOR >				
*	1-659-413-11	TC CONTROL BOA	SD				R533	1-249-419-11	CARBON	1. 5K	5%	1/4W	F
*	1 000 410 11	*******					R534	1-249-421-11		2. 2K		1/4W	
							R535	1-249-423-11		3. 3K		1/4W	
		< DIODE >					R536 R537	1-249-427-11 1-249-431-11		6.8K 15K	5% 5%	1/4W 1/4W	F
D630	8-719-058-03	DIODE SEL542	3E-TP15	( <b>⊳</b> ) (	DECK B	3)	Noor	1-245-431-11	CARDON	131			, IT, EE)
D631	8-719-058-03										,		
D632	8-719-058-03 8-719-058-03						R590	1-249-417-11	CARBON	1K	5%	1/4W	F
D633 D634	8-719-058-03				DECK A	.)			< SWITCH >				
2001													
D635	8-719-058-03	DIODE SEL542	3E-TP15	;			S533		SWITCH, TACTILE SWITCH, TACTILE				NG)
		< RESISTOR >					S534 S535		SWITCH, TACTILE	•	SPEED	DORRI	NG)
		, madiation ,					S536		SWITCH, TACTILE		REC)		
R538	1-247-815-91		220	5%	1/4W		S537	1-554-303-21	SWITCH, TACTILE	(DIRE	CTION)		
R539	1-249-411-11 1-249-413-11		330 470	5% 5%	1/4W 1/4W	E	CE 20	1_55/_202 21	SWITCH, TACTILE	(IV)1 F	V MD/		
R540 R541	1-249-413-11		470 680	5% 5%	1/4W		S538	1-334-303-21	OWITCH, INCIDE	(DULE		P. IIK. G	IT, EE)
R542	1-249-417-11		1K	5%	1/4W						(	- , J.i., U	,, 20,
D= 10	1 0/0 /10	CARRON	1 -17	F0/	1 / 177		******	******	*******	*****	*****	*****	*****
R543 R544	1-249-419-11 1-249-421-11		1.5K 2.2K		1/4W 1/4W								
R545	1-249-421-11		3. 3K		1/4W								

# **TCB-17**

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
*	A-4303-513-A	TCB-17 BOARD,				C68 C69 C70	1-162-306-11 1-162-306-11 1-162-306-11	CERAMIC	10000PF 10000PF 10000PF	30% 30% 30%	16V 16V 16V
		< CAPACITOR >				C71	1-162-306-11		10000FF	30%	16V 16V
C1 C2 C3	1-162-294-31 1-126-967-11 1-164-159-21	ELECT	0. 001uF 47uF 0. 1uF	10% 20%	50V 16V 50V	C73 C74	1-162-306-11 1-126-964-11		10000PF 10uF	30% 20%	16V 50V
C5	1-162-306-11	CERAMIC	10000PF	30%	16V			< FILTER >			
C6	1-162-306-11		10000PF	30%	16V	CF1		FILTER, CERAMI			
C7 C8	1-101-004-00 1-162-306-11		0.01uF 10000PF	30%	50V 16V	CF2	1-567-389-11	FILTER, CERAMI	iC		
C9 C11	1-162-306-11 1-164-159-21		10000PF 0. 1uF	30%	16V 50V			< CONNECTOR >			
C12	1-162-198-31		8. 2PF	10%	50V	* CN1	1-568-832-11	SOCKET, CONNEC	CTOR 13P		
C14	1-162-306-11		10000PF	30%	16V			< DIODE >			
C21 C22	1-102-959-00 1-164-159-21		22PF 0. 1uF	5%	50V 50V	D1	8-719-933-33	DIODE UZL-6L	.1-TA		
C23 C24	1-162-306-11 1-126-967-11		10000PF 47uF	30% 20%	16V 16V	D2	8-719-987-63	DIODE 1N4148	BM-TA		
C25	1-162-306-11		10000PF	30%	16V			< FRONTEND >			
C26	1-126-964-11	ELECT	10uF	20%	50V	FE1		ENCAPSULATED C			
C27 C28	1-164-159-21 1-124-925-11		0. 1uF 2. 2uF	20%	50V 100V	FE2	1-239-260-11	ENCAPSULATED C	COMPONENT		
C29	1-102-518-11		33PF	5%	50V			< IC >			
C30 C31	1-162-294-31 1-162-306-11		0.001uF 10000PF	10% 30%	50V 16V	IC1 IC2	8-759-288-54 8-759-176-03	IC LC72130			
C41	1-126-933-11	ELECT	100uF	20%	10V	102	0 133 110 03	IC LAIGUS			
C42 C43	1-162-306-11 1-126-962-11		10000PF 3. 3uF	30% 20%	16V 50V			< IFT >			
C44	1-162-306-11		10000PF	30%	16V	IFT41	1-409-636-11	TRANSFORMER, I	F (CERAMIC	FILTER)	
C45	1-124-589-11	ELECT	47uF	20%	16V			< COIL >			
C46 C47	1-162-600-11 1-162-294-31		4700PF 0.001uF	30% 10%	16V 50V	L41	1-410-119-11	MICRO INDUCTOR	R (EL TYPE)		
C48	1-126-160-11	ELECT	luF	20%	50 <b>V</b>			< TRANSISTOR >			
C49		METALIZED FILM		5%	50V	0.	0 700 000 WW				
C50 C53		METALIZED FILM ELECT		5 <b>%</b> 20 <b>%</b>	50V 50V	Q1 Q2	8-729-230-XX 8-729-230-XX	TRANSISTOR 2 TRANSISTOR 2	SC26690Y-TP SC26690Y-TP		
C54	1-126-157-11		10uF	20%	16V	Q3	8-729-230-XX	TRANSISTOR 2	SC26690Y-TP	E4	
C55	1-126-964-11	ELECT	10uF	20%	50V	Q4 Q5	8-729-230-XX 8-729-422-57		SC26690Y-TP BN1A4M-TP	E4	
C56	1-126-964-11		10uF	20%	50V			/ DDOLOMOD >			
C57 C58	1-164-159-21 1-162-306-11		0. 1uF 10000PF	30%	50V F 16V			< RESISTOR >			
C59	1-164-159-21		0. 1uF	00%	50V F	R1	1-249-401-11	CARBON	47 5%	1/4W	F
C61	1-164-159-21		0. 1uF		50V F	R2 R3	1-249-411-11 1-249-411-11	CARBON	330 5% 330 5%	1/4W 1/4W	-
C62	1-126-967-11	ELECT	47uF	20%	16V	R5	1-249-411-11		330 5%	1/4W	
C63	1-164-159-21	CERAMIC	0. 1uF		50V F	R6	1-247-863-91	CARBON	22K 5%	1/4W	
C64	1-124-902-00		0. 47uF	20%	50 <b>V</b>						
C65	1-124-903-11		1. 0uF	20%	50V	R7	1-249-411-11		330 5%	1/4W	
C66	1-124-903-11	ELECT	1. 0uF	20%	50 <b>V</b>	R8	1-249-411-11		330 5%	1/4W	
C67	1-126-964-11	ELECT	10uF	20%	50 <b>V</b>	R9 R10	1-247-863-91 1-249-411-11		22K 5% 330 5%	1/4W 1/4W	

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description			Remark
R11	1-247-863-91	CARBON	22K	5%	1/4W		******	******	*******	******	****	******
R12 R13	1-249-411-11 1-249-411-11		330 330	5% 5%	1/4W 1/4W		*	A-4303-502-A	TCB-17 BOARD,		•	
R14	1-247-863-91		22K	5%	1/4W				******	*****	****	***
`R15	1-249-429-11		10K	5%	1/4W		*	A-4303-503-A	TCB-17 BOARD,			•
R16	1-249-437-11	CARBON	47K	5%	1/4W				********	*******	*****	**
R19	1-249-399-11		33	5%	1/4W	F	*	A-4303-504-A	TCB-17 BOARD,		,	
R21	1-247-807-31		100	5%	1/4W	В			*******	******	****	
R22 R23	1-249-425-11 1-249-425-11		4.7K 4.7K		1/4W 1/4W				< CAPACITOR >			
R24	1-249-425-11		4. 7K		1/4W				CAPACITOR >			
11.04	1 545 455 11	CHILDON	7. (II	070	1/ 11	•	C1	1-163-141-00	CERAMIC CHIP	0 001nF	5%	50V
R25	1-247-807-31	CARBON	100	5%	1/4W		C2	1-126-967-11		47uF	20%	16V
R26	1-249-411-11		330	5%	1/4W		C3		CERAMIC CHIP	0. 1uF	_ •.•	25V
R27	1-249-425-11	CARBON	4.7K	5%	1/4W	F	C5	1-163-031-11	CERAMIC CHIP	0,01uF		50V
R28	1-249-423-11	CARBON	3. 3K	5 <b>%</b>	1/4W	F	C6	1-163-038-91	CERAMIC CHIP	0. 1uF		25V
R29	1-249-417-11	CARBON	1K	5%	1/4₩	F						
							C7	1-101-004-00		0.01uF		50V (EE)
R30	1-249-417-11		1K	5%	1/4W		C8		CERAMIC CHIP	0.01uF		50V
R31	1-249-417-11		1K	5%	1/4W		C9		CERAMIC CHIP			50V
R32	1-249-417-11		1K	5%	1/4W	F	C10		CERAMIC CHIP			50V
R33	1-247-807-31		100	5%	1/4W		C16	1-163-038-91	CERAMIC CHIP	0. 1uF		25V
R34	1-249-429-11	CARBON	10K.	5%	1/4W		C19	1-163-249-11	CERAMIC CHIP	82PF	5%	50 <b>V</b>
R35	1-249-429-11	CARBON	10K	5%	1/4W					-	0.0	(AEP, UK, EE)
R36	1-249-437-11	CARBON	47K	5%	1/4W		C21	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
R37	1-249-417-11	CARBON	1K	<b>5%</b>	1/4W	F	C22		CERAMIC CHIP	0.01uF		50V
R41	1-249-429-11	CARBON	10K	5 <b>%</b>	1/4W		C23	1-163-235-11		22PF	5%	50V
R43	1-249-421-11	CARBON	2. 2K	5%	1/4W		C24	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
R44	1-249-421-11	CARBON	2. 2K	5%	1/4W		C26	1-126-967-11	ELECT	47uF	20%	16V
R46	1-249-442-11		510	5%	1/4W		C28	1-126-967-11		47uF	20%	16V
R47	1-249-403-11	CARBON	68	5%	1/4₩	F	C29	1-162-306-11	CERAMIC	0.01uF	30%	16V
R48	1-249-423-11	CARBON	3. 3K	5 <b>%</b>	1/4W	F	C30	1-124-925-11	ELECT	2. 2uF	20%	100V
R49	1-249-393-11	CARBON	10	5 <b>%</b>	1/4₩	F	C31	1-163-031-11	CERAMIC CHIP	0.01uF		50V
R50	1-249-429-11		10K	5%	1/4W		C32		CERAMIC CHIP	0. 1uF		25V
R51	1-249-441-11		100K		1/4W		C33	1-163-038-91		0. 1uF		25V
	1-249-429-11		10K	5%	1/4W		C34	1-163-091-00		8PF		50V (G, IT)
R53	1-249-425-11		4.7K		1/4₩		C34	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
R54	1-249-425-11		4. 7K		1/4W	F	C35	1-163-038-91	CERAMIC CHIP	0. 1uF		(AEP, UK, EE) 25V
		< VARIABLE RE	SISTOR	>			000		ODD 11110			
DV 4.1	1 000 000 11	DEC INT CID	DON 10	17			C36		CERAMIC CHIP	0.001uF	5%	50V
RV41 RV42		RES, ADJ, CAR					C37		CERAMIC CHIP	0. 001uF	5%	50V
RV42	1-236-001-11	RES, ADJ, CAR	DUN ZZ	v			C39 C40		CERAMIC CHIP	0.001uF	5%	50V
		< TERMINAL >					C40 C41		CERAMIC CHIP	0.01uF		50V 50V
		\ IDMITTAL >					C41	1-103-031-11	CERAMIC CHIP	0. 01ur		50 <b>Y</b>
TM1	1-537-238-21	TERMINAL BOAR	D (ANT	ENNA)			C42		CERAMIC CHIP	0. luF		25V
							C43		CERAMIC CHIP	0. 1uF		25V
		< VIBRATOR >					C44		CERAMIC CHIP			50 <b>V</b>
							C45		CERAMIC CHIP	0. 1uF		25V
X21		VIBRATOR, CRY	,		•		C46	1-163-077-00	CERAMIC CHIP	0. 1uF	10%	25V
X41		OSCILLATOR, C			HZ)		C 177	1 100 007 11	PI POT	47P	0.00/	1.037
X42 X43		FILTER, CERAM FILTER, CERAM					C47 C48	1-126-967-11		47uF	20%	
A40	1 221-201-00	IILIEN, CERAM	10 (40	onnz)			C48 C49	1-163-031-11	CERAMIC CHIP	0. 01uF 0. 47uF	20%	50V
							040	1 144 304 00	DDLC1	O. TIUL	40/0	JU 1

# TCB-17

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description			Remark	<u>-</u>
C50 C51	1-124-903-11 1-124-903-11		1. 0uF 1. 0uF	20% 20%					< IFT >				
C52	1-126-964-11	ELECT	10uF	20%			IFT41	1-409-636-11	ŕ	,		IC FILTER)	
C53	1-126-964-11		10uF	20%					< JUMPER RES	ISTOR	>		
C54 C55	1-126-157-11 1-126-157-11		10uF	20% 20%			101	1 216 205 11	METAL CUID	۸	г <b>о</b> /	1/10W (C TT)	
C56	1-126-157-11		10uF 10uF	20%	16V		JR1 JR2	1-216-295-11 1-216-295-11		0 0		1/10W (G, IT) 1/10W (AEP, UK, EE)	
000	1 120 107 11	DEBCI	Tour	2010	101		JR3	1-216-295-11		0		1/10\(\text{(AEI, OK, EE)}\)	
C57	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V		JR6	1-216-295-11		0		1/10W	
C58		CERAMIC CHIP		5%	50V							(AEP, UK, G, IT)	
C59		CERAMIC CHIP		10%	25V (		JR7	1-216-295-11	METAL CHIP	0	5%	1/10W (G, IT)	
C60		CERAMIC CHIP			25V (	(EE)	****			_			
C61	1-126-301-11	ELECT	1uF	20%	50V		JR8	1-216-295-11		0		1/10W (AEP, UK, EE)	
C62	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V		JR9 JR45	1-216-295-11 1-216-295-11		0		1/10W (AEP, UK, EE) 1/10W	
C63		CERAMIC CHIP			50V		JR46	1-216-296-11		0		1/8W	
000	1 100 017 00	0211111110 01111	0.001.01			JK, G, IT)	JR47	1-216-295-11		0		1/10\\	
C64	1-126-967-11	ELECT	47uF	20%		, , ,						-,	
C65		CERAMIC CHIP			50V		JR48	1-216-295-11		0	5%	1/10W	
C66	1-126-162-11	ELECT	3. 3uF	20%	50 <b>V</b>		JR49	1-216-296-11		0		1/8W	
		DI DOM		200			JR51	1-216-295-11		0		1/10W	
C67 C68	1-126-933-11 1-162-306-11		100uF	20% 30%	10V		JR52	1-216-295-11 1-216-296-11		0		1/10W	
C71	1-162-306-11		0. 01uF 0. 01uF	30%			JR53	1-216-296-11	METAL CHIP	0	5%	1/8W	
C72	1-126-967-11		47uF	20%			JR54	1-216-295-11	METAL CHIP	0	5%	1/10W	
C120		CERAMIC CHIP	33PF	5%	50V		01101	1 210 200 11	MBIND OIII	v	UNI	1/10#	
					(AEF	, UK, EE)			< JUMPER RES	ISTOR :	>		
		< FILTER >					JW4	1-249-413-11	CARBON	470	5%	1/4W (AEP, UK, G, IT)	
CF1		FILTER, CERAM					JW5	1-249-413-11	CARBON	470	5%	1/4W	
CF1		FILTER, CERAM										(AEP, UK, G, IT)	
CF2 CF3		FILTER, CERAM FILTER, CERAM		(, G, T	1)				< COII >				
CF3		FILTER, CERAM		( G 1'	T)				< COIL >				
CIU	1 700 333 11	TIBIBA, CBAAM	ic (ALI, 0	1, 0, 1	1)		L2	1-414-142-11	MICRO INDUCTO	OR 1nH	(AEF	P. UK. G. IT)	
		< CONNECTOR >					L3 L4		MICRO INDUCT	OR 100t	ıH	EP, UK, G, IT)	
* CN1	1-568-834-11	SOCKET, CONNEC	CTOR 15P			ì	L41 L41	1-407-500-00	MICRO INDUCT	OR 4.71	nH (A		
		< DIODE >										(1, 11,	
									< FILTER >				
D21		DIODE UDZ-TI					I DD 41	1 000 045 11	DII TOD I ON I	2100			
D41	8-719-016-74	DIODE 1SS35	Z-1PH3					1-239-845-11 1-239-845-11					
		< FRONTEND >					2	1 200 010 11	TIBIBI, BOTT	1100			
									< TRANSISTOR	>			
FE1		FRONT END (4 (		UK, G,	IT)								
FE1		FRONT END (3 (		(APD	tur DD	,	Q1	8-729-201-27		2SC271			
FE2 FE2		ENCAPSULATED (		` '	. ,	)	Q2 Q3	8-729-201-27 8-729-201-27		2SC271 2SC271			
rez	1-235-200-11	ENCAP SULATED (	COMIT OLIVELY I	(0, 1)	l <i>)</i>		Q3 Q4	8-729-201-27		2SC271			
		< IC >					Q5	8-729-422-57		MUN211		DOOD	
						ļ					-		
IC21	8-759-288-54					1	Q9	8-729-216-22				6 (AEP, UK, EE)	
IC41	8-759-176-03	IC LA1835				1	Q11	8-729-900-80				AEP, UK, EE)	
							Q12	8-729-900-80				AEP, UK, EE)	
						l	Q13 Q14	8-729-900-80 8-729-900-80				AEP, UK, EE) AEP, UK, EE)	
						•	AT.1	0 120 300 00	TIVITOTOTO	שונווע	) تحد	nu, un, ee)	

## TCB-17 TRANS

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description Remark
		< RESISTOR >							< VARIABLE RESISTOR >
R1 R2 R3	1-249-401-11 1-216-037-00 1-216-037-00	METAL CHIP	47 330 330	5% 5%	1/4W 1/10W 1/10W	F	RV41 RV42		RES, ADJ, CARBON 22K RES, ADJ, CARBON 10K
R5 R6	1-216-037-00 1-216-081-00		330 22K		1/10W 1/10W				< TERMINAL >
R7	1-216-037-00 1-216-037-00		330		1/10W		TM1	1-537-488-11	TERMINAL BOARD (ANT) (ANTENNA)
R8 R9	1-216-081-00	METAL CHIP	330 22K	5%	1/10W 1/10W		V01	1 700 540 11	< VIBRATOR >
R10 R11	1-216-037-00 1-216-081-00		330 22K		1/10W 1/10W		X21 X41 X42	1-760-220-11	VIBRATOR, CRYSTAL (4.5MHz) FILTER, CERAMIC (10.7MHz) FILTER, CERAMIC (450KHz)
R12 R13	1-216-037-00 1-216-037-00		330 330		1/10W 1/10W		X43		OSCILLATOR, CERAMIC (456KHz)
R14 R18	1-216-081-00 1-216-073-00	METAL CHIP	22K 10K	5%	1/10W	(AEP, UK, EE)	******	*******	******************************
R19	1-216-073-00	METAL CHIP	10K	5%	1/10W	(AEP, UK, EE)	*	1-659-218-11	TRANS BOARD *********
R21 R22	1-216-049-11 1-216-049-11	METAL CHIP	1.0K	5%	1/10W 1/10W				< CAPACITOR >
R23 R24 R25	1-216-049-11 1-216-025-11	METAL CHIP	100	5%	1/10W 1/10W	T.	C1600	1-164-159-21	CERAMIC 0.1uF 50V
R26	1-249-417-11 1-249-437-11		1K 47K		1/4W	Г			< CONNECTOR >
R27 R28	1-249-429-11 1-249-417-11	CARBON	10K 1K	5%	1/4W 1/4W	D.			PIN, CONNECTOR (PC BOARD) 2P (AUS, MX) PIN, CONNECTOR (PC BOARD)
R29	1-216-061-00	METAL CHIP	3. 3K	5%	1/10W	r			(AEP, UK, G, IT, EE, E, PX, AR)
R30	1-216-186-00		330		1/8W		CN16U4	1-504-524-11	PLUG, CONNECTOR 9P
R31 R32	1-216-025-11 1-249-425-11	CARBON	100 4. 7K	5%	1/10W 1/4W				< FUSE >
R33 R34	1-249-425-11 1-216-065-00		4. 7K 4. 7K		1/4W 1/10W	F			FUSE (T4A 250V) (E, PX, MX, AR) FUSE (T1. 6A 250V)
R35	1-216-214-00	METAL CHIP	4. 7K						(AEP, UK, G, IT, EE, E, AUS, PX, AR)
R36 R37	1-216-025-11 1-216-073-00		100 10K		1/10W 1/10W				< FUSE HOLDER >
R38	1-216-089-11	METAL CHIP	47K	5%	1/10₩				HOLDER, FUSE (E, PX, AR)
R39 R42	1-249-429-11 1-216-073-00		10K 10K		1/4W 1/10W		FH1603	1-533-217-31	HOLDER, FUSE (E, PX, AR) HOLDER, FUSE HOLDER, FUSE
R43 R44	1-216-042-00 1-216-021-00		510 68	5% 5%	1/10W 1/10W				< RESISTOR >
R45	1-249-423-11	CARBON	3. 3K	5%	1/4W	F			
R46 R47	1-216-073-00 1-216-097-11		10K 100K		1/10W 1/10W			1-219-139-11 1-219-136-11	
R48	1-249-417-11		1K		1/4W	F		1-219-136-11	
R49	1-216-049-11	METAL CHIP	1. OK	5%	1/10W				< TRANSFORMER >
R50 R51	1-216-065-00 1-216-065-00				1/10W 1/10W		<b>♠</b> T1001	1_420_242_11	TRANSFORMER, POWER (AEP, UK, G, IT, EE)
R53	1-249-429-11		10K		1/10W 1/4W				TRANSFORMER, POWER (E, AUS, PX, MX, AR)
R55	1-216-162-00		33		1/8W				< SWITCH >
R56 R91	1-249-393-11 1-216-295-11		10 0		1/4W 1/10W	F (AEP, UK, EE)	<b>∱\V</b> \$1601	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE
R92	1-216-073-00		10K			(AEP, UK, EE)	₩.DI001	- 0.5 010 II	(VOLTAGE SELECTOR) (E, PX, AR)

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.

Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
********  154 154 155 156 157  158 158 160 * 357	1-769-977-11 1-773-009-11 1-765-325-11 1-765-338-11 1-765-338-11 1-773-119-11 1-773-154-11 1-569-007-11 1-452-538-11	**************************************	PX, MX, AR) G, IT, EE)	* * * * * * * * * * * * * * * * * * * *	(ENGI 3-810-803-21 4-979-306-01 4-979-307-01 4-979-309-01 4-979-431-01 4-980-140-01 4-981-440-01 8-917-537-90	MANUAL, INSTRUCTION INDIVIDUAL CARTINDIVIDUAL CARTI	NISH, CHINESE) (E, AUS, PX, AR) CTION (SPANISH) (MX) FON (AUS, PX) FON (E, MX, AR) FON (AEP, UK, G, IT, EE)  (for RM-SD50) M) D) ********************************
↑CNP16 ↑CNP16 ↑CNP16 ↑CNP16 ↑CNP16 ↑F1603 ↑F1604  FL501 HP101 HRPE1  M1 M2 M101 M102 M201  \$101 ↑T1001	011-558-943-41 011-575-651-21 011-696-845-11 011-751-529-11 1-532-350-00 1-532-259-00 1-517-490-21 1-500-093-11 011-500-094-11 X-2004-409-1 X-2004-410-1 X-4917-523-4 X-4917-504-1 A-4660-977-A 1-572-085-11 1-429-343-11	WIRE (FLAT TYPE) (16 CORE) CORD, POWER (E, PX, MX) CORD, POWER (AEP, G, IT, EE, AR) CORD, POWER (AUS) CORD, POWER (AUS) CORD, POWER (UK)  FUSE (T4A, 250V) (E, PX, MX, AR) FUSE (T1. 6A, 250V)  (AEP, UK, E, AUS, PX, G, I INDICATOR TUBU, FLUORESCENT HEAD, MAGNETIC (PLAYBACK) HEAD, MAGNETIC (REC/PB/ERASE)  MOTOR ASSY (CAPSTAN) MOTOR ASSY (TRIGGER) MOTOR ASSY (SPINDLE) MOTOR ASSY (SLED) MOTOR ASSY (TABLE)  SWITCH, LEAF (LIMIT) TRANSFORMER, POWER (AEP, UK, G, IT, TRANSFORMER, POWER (E, AUS, PX, MX,	EE)	#1 #2 #3 #4 #5 #6 #7 #8 #9 #10 #11 #12	7-682-548-04 7-685-871-01 7-685-650-79 7-621-770-67 7-685-131-19 7-685-534-19 7-621-775-10 7-685-533-19 7-623-921-01 7-621-775-00	HARDWARE  ***************  SCREW +BVTP 3X: SCREW +BVTT 3X: SCREW +BVTT 3X: SCREW +BVTT 2.  SCREW +BTP 2.6: SCR	******  8 TYPE2 N-S  8 (S)  6 (S)  16 TYPE2 IT-3  6X6 (S)  X4 TYPE2 N-S  X8 TYPE2 N-S  X6 TYPE2 N-S  G, CAPSTAN
*****	ACCESSORIE ************************************	**************************************	K) ESE) (AEP) ) (AEP, IT)			⚠ or critica	omponents identified by mark dotted line with mark ⚠ are all for safety. ce only with part number fied.

Sony Corporation
Consumer A&V Products Company
Home A&V Products Div.

English 96A0979-1 Printed in Japan © 1996. 1 Published by Home A&V Products Div. Quality Engineering Dept.

# **HCD-N455**

SONY

# **SERVICE MANUAL**

AEP Model UK Model E Model Australian Model PX Model

### **SUPPLEMENT-1**

File this supplement with the service manual.

**Subject: 1. CORRECTION** 

2. SERVICING NOTE ADDITION

3. PARTS CHANGED

4. BOARD CHANGED

(ECN-TA600653)

#### 1. CORRECTION

• Correct your service manual as shown below.

: indicates corrected portion.

Page		INCORRECT			CORRECT	
88	Ref. No. Part No.	Description Remark	Ref. No.	Part No.	<u>Description</u>	Remark
		*** EXPLODED VIEWS ***			*** EXPLODED VIEWS ***	
		was and a large state of the st	274	3-911-11	6-11 RIVET, PUSH	
		# 6 			# 6	
	0	271 (including •A) 269		0	271 (including •A) 274	
		(medding \$A)			(including •A)	
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	not so	upplied	273			D
		266 · 262	>6			
	HP101	257	269	<b>3</b>		<b>)</b>
	256 —	258 261		26	265	
		250			273	
	255	259	O ED O		200	
			t supplied		266 269	:
	254	HRPE101	268	_ 257	262 263	
: :	not sup	256		<b>≈</b> ~	261	
		not supplied	9			
	1 /	200 - (1/8)				
	252 ′	251	W.		260 258	
		not supplied	254	CC A		
		252 / not supplie	d		253	
		251 <sup>#9</sup>				
		LI AL ADDINA (FD.) TODOS	0.12	0.044.4:	4 of ODDING (ED) TODGON	
89	319 3-914-11	1-01 SPRING (FR), TORSION	319	3-911-114	4-01 SPRING (FR), TORSION	

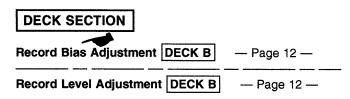
Page			INCORR	ECT					CORRI	ECT		
96	Ref. No.	Part No.	Description	1		<u>Remark</u>	Ref. No.	Part No.	Description	1		<u>Remark</u>
		*** ELI	ECTRICAL PA	ARTS LIST *	***			*** EL	ECTRICAL P	ARTS LIST	***	
			*** MAIN	BOARD ***					*** MAIN	BOARD **	*	
1	C805	1-124-252-00	ELECT	0.33uF	20%	50V	i i				-	
	C855	1-124-252-00	ELECT	0.33uF	20%	AUS,PX,MX,AR) 50V AUS,PX,MX,AR)					-	
100	R740	1-249-425-11	CARBON	4.7K	5%	1/4W F (E,MX,AR)	R740	1-247-843-11	CARBON	3.3K	5%	1/4W F (E,MX,AR)
	R741	1-249-427-11	CARBON	6.8K	5%	1/4W F (E,MX,AR,EE)	R741	1-249-423-11	CARBON	10K	5%	1/4W F (E,MX,AR)
						(=,,,,	R741	1-249-427-11	CARBON	6.8K	5%	1/4W F (EE)
101							R903	1-249-437-11	CARBON	47K	5%	1/4W
106		A-4389-210-A	POWER AN	IP BOARD,		ete Aep,uk,g,it,ee)	*	A-4389-210-A	POWER AN	MP BOARD	•	
		A-4389-212-A	POWER AN	IP BOARD,	COMPL		*	A-4389-212-A	POWER AM	MP BOARD	, COMPLE	EP,UK,G,IT,EE) ETE US,PX,MX,AR)
		1-537-770-21	TERMINAL	BOARD, GF		100,1 71,1117,71117	*	1-537-738-21	TERMINAL	., EARTH	(上,八	00,1 A,IVIA,AII)
	C1348	1-136-495-11	FILM	0.068uF	5% (A	50V AEP,UK,G,IT,EE)					-	
	C1349	1-136-495-11	FILM	0.068uF	5%`	50V AEP,UK,G,IT,EE)					-	
	C1398	1-136-495-11	FILM	0.068uF	5%	50V AEP,UK,G,IT,EE)					-	
	C1399	1-136-495-11	FILM	0.068uF	5%	50V		*		<del></del>	-	
	C1492	1-136-157-00	FILM	0.022uF	5%	AEP,UK,G,IT,EE) 50V AEP,UK,G,IT,EE)		<del></del>	<del> </del>		-	

Abbreviation
 G : German model
 IT : Italian model
 EE : East European model
 MX : Mexican model
 AUS : Australian model
 AR : Argentine model

#### **ELECTRICAL ADJUSTMENTS CORRECTION**

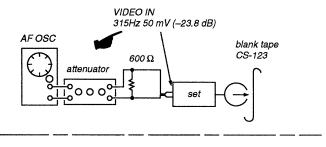
· Correct your service manual as shown below.





#### Procedure:

- 1. Set function to VIDEO.
- 2. Mode: record



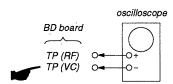
**CD SECTION** 

-- Page 14 ---

#### Note:

- CD Block is basically designed to operate without adjustment.
   Therefore, check each item in order given.
- 2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
- 3. Use an oscilloscope with more than  $10M\Omega$  impedance.
- Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks
- 5. Adjust the focus bias adjustment when optical block is replaced.

#### **Focus Bias Adjustment**



#### Procedure:

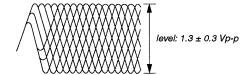
1. Connect oscilloscope to test point TP (RF).



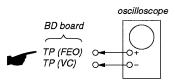
- 3. Put disc (YEDS-18) in and playback.
- Adjust RV101 so that the waveform is clear. (Clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.)
- 5. After adjustment, check the RF signal level.

• RF signal

VOLT/DIV: 200 mV TIME/DIV: 500 nS



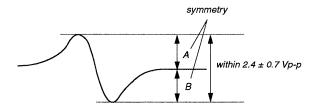
#### S Curve Check



#### Procedure:

- 1. Connect oscilloscope to test point TP (FEO).
- 2. Connect between test point TP (FOK) and Ground by lead wire.
- 3. Turn Power switch on.
- Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
- 5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within  $2.4 \pm 0.7$  Vp-p.

#### S-curve waveform

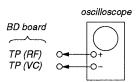


6. After check, remove the lead wire connected in step 2.

**Note:** • Try to measure several times to make sure than the ratio of A: B or B: A is more than 10: 7.

 Take sweep time as long as possible and light up the brightness to obtain best waveform.

#### **RF Level Check**

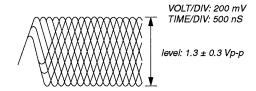


#### Procedure:

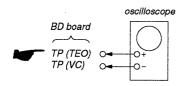
- 1. Connect oscilloscope to test point TP (RF) on BD board.
- 2. Turned Power switch on.
- 3. Put disc (YEDS-18) in and playback.
- Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

**Note:** Clear RF signal waveform means that the shape "\$\omega\$" can be clearly distinguished at the center of the waveform.

#### RF signal waveform



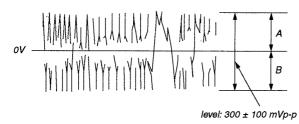
#### E-F Balance Check — Page 15 —



#### Procedure:

- Connect test point TP703 (ADJ2) on Main board to Ground with a lead wire.
- 2. Connect oscilloscpe to test point TP (TEO).
- 3. Turned Power switch on.
- 4. Put disc (YEDS-18) in and playback.
- 5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0Vdc, and check this level.

#### Traverse waveform



Specified level: •  $\frac{A-B}{2(A+B)} \times 100 = less than \pm 7\%$ •  $A+B=300\pm 100 \text{ mVp-p}$ 

6. Remove the lead wire connected in step 1.

#### Focus/Tracking Gain Adjustment (RV102, RV103)

This gain has a margin, so even if it is slightly off.

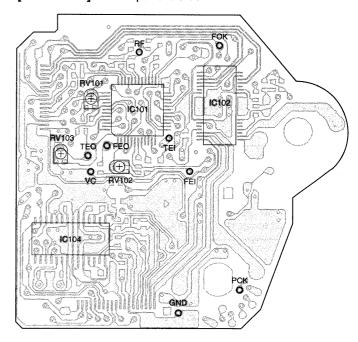
There is no problem.

Therfore, do not perform this adjustment.

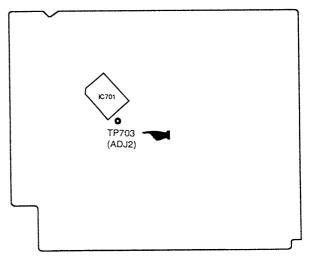
Please note that it should be fixed to mechanical center position when you moved and do not know original position.

#### **Adjustment Location:**

#### [BD BOARD] — Component Side —



#### [MAIN BOARD] — Conductor Side —



#### 2. SERVICING NOTE ADDITION

#### How to reset all

Pressing the <u>TUNER/BAND</u>, <u>DISPLAY/DEMO</u> and <u>FILE 3</u> buttons simultaneously, all are reset and returned to as when the unit was shipped.

#### Note for replacement of microprocessor (IC701)

R740 and R741 on the Main board for changing destination differ the fixed numbers in comparison with new and former microprocessors (IC701).

**FORMER** 

FORME		for use TMP87CS64YF-6361 to 01 on the MAIN board.	NEW T		ise TMP87CS64YF-6417 to IC701 IAIN board.
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
IC701 R740 R740 R741 R741	8-759-375-44 1-247-863-91 1-247-843-11 1-247-863-91 1-249-423-11	IC TMP87CS64YF-6361 CARBON 22K (AUS,PX) CARBON 3.3K (E,MX,AR) CARBON 22K (AUS,PX) CARBON 10K (E,MX,AR)	IC701 R740 R740 R741 R741	8-759-398-86 1-247-843-11 1-249-425-11 1-249-429-11 1-249-427-11	IC TMP87CS64YF-6417 CARBON 3.3K (AUS,PX) CARBON 4.7K (E,MX,AR) CARBON 10K (AUS,PX) CARBON 6.8K (E,MX,AR)

#### Abbreviation

#### 3. PARTS CHANGED

**Page** 

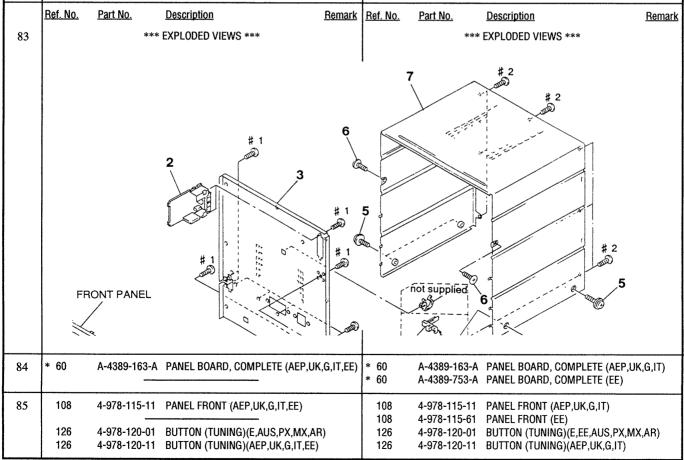
: indicates changed portion.

G : German model MX : Mexican model IT : Italian model AUS : Australian model EE : East European model AR : Argentine model

NEW

D. Part No. Description Remark

\*\*\* EXPLODED VIEWS \*\*\*



Page	FORMER	NEW
86	Ref. No.         Part No.         Description         Remain           * 159         A-4378-954-A         MAIN BOARD, COMPLETE (AEP,UK,G,IT)           * 159         A-4378-962-A         MAIN BOARD, COMPLETE (E,AUS,PX,MX,AI)           ————————————————————————————————————	* 159
	(E, PX, MX model)  CNP1601  (AEP, G, IT, EE, AR model)  CNP1601  (AUS model)	(E, PX, MX model)  CNP1601  (AEP, G, IT, EE, AR model)  CNP1601  (AUS model)  CNP1601
	not supplied not supplied # 1	not supplied not supplied # 1
88	* 253 X-3367-584-2 SLIDER (HEAD) ASSY 262 X-3370-643-1 PINCH LEVER (REV) ASSY 263 X-3367-588-1 PINCH LEVER (FWD) ASSY 269 3-911-116-21 RIVET, PUSH 274 3-911-116-11 RIVET, PUSH	* 253 X-3370-844-2 SLIDER (HEAD) ASSY 262 X-3369-909-1 PINCH LEVER (REV) ASSY 263 X-3369-908-1 PINCH LEVER (FWD) ASSY 269 3-939-862-01 CLIP 270 3-938-863-01 STOPPER

G: German model
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The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety.

Replace only with part number specified.

Page			FORMER				NEW	
	Ref. No.	Part No.	<u>Description</u>	Remark	Ref. No.	Part No.	Description	Remark
89	303 318		ARM (A) ASSY, FR ARM (B) ASSY, FR		303 318	X-3372-930-1 X-3372-931-1	ARM (A) ASSY, FR ARM (B) ASSY, FR	
		;	318		•	318	319	
		306	302 301	-319	303	Ø.	02 301	319
			***************************************			····		
114	△ F1603 △ F1604		*** MISCELLANEOUS ***  FUSE (T4A,250V)(E,PX,MX,  FUSE (T1.6A,250V)  (AEP,UK,E,AL	AR) JS,PX,G,IT,EE,AR)	△ 160 161 △ F1603 △ F1604	X-4941-228-1 1-532-465-31	*** MISCELLANEOUS *  ADAPTOR, CONVERSION FOOT (F22125H-M) FUSE TIME LAG (4A,250 FUSE TIME LAG (1.6A,2 (AEP,UK,I	N 2P DV)(E,PX,MX,AR)
		*** ACCESSOF	RIES & PACKING MATERIALS	***		*** ACCESSOI	RIES & PACKING MATERI	ALS ***
		4-979-306-01 4-981-440-01	INDIVIDUAL CARTON (AUS, LABEL (PTT)(IT)	PX)	*	4-979-306-01	INDIVIDUAL CARTON (A	NUS,PX)

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The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

G : German model MX : Mexican model IT : Italian model AUS : Australian model EE : East European model AR : Argentine model

Page			FORM	ER			T		NEW	1		
	Ref. No.	Part No.	Description			<u>Remark</u>	Ref. No.	Part No.	Description			<u>Remark</u>
		*** EL	ECTRICAL PA	ARTS LIST *	**			*** EL	ECTRICAL PA	ARTS LIST *	**	
93			*** CD (L)	BOARD ***					*** CD (L)	BOARD ***		
	R682 R683	1-249-407-11 1-249-407-11		150	5%	1/4W			JUMPER			
	R684	1-249-407-11		150 150	5% 5%	1/4W 1/4W			Jumper Jumper			
94			*** CD (R)	BOARD ***	:				*** CD (R)	BOARD ***	•	
	R675 R676	1-247-807-31 1-249-407-11		100 150	5% 5%	1/4W 1/4W			JUMPER JUMPER			
			*** CD MO	TOR BOARD	) ***			*** CD MOTOR BOARD ***				
	C202	1-162-306-11	CERAMIC	0.01uF	30%	16V	C202	1-164-159-21	CERAMIC	0.1uF		50V
95			*** DOOR :	SW BOARD	***				*** D00R	SW BOARD	***	
	* CN519	1-568-940-11	PIN, CONNE	CTOR 2P			CN519	1-506-481-11	PIN, CONN	ECTOR 2P		
			*** HP BOA	\RD ***					*** HP BO/	ARD ***		
	C621	1-164-159-21	CERAMIC	0.1uF		50V	C621	1-162-294-31	CERAMIC	0.001uF	10%	50V
	C622	1-164-159-21	CERAMIC	0.1uF	•	P,UK,G,IT,EE) 50V P,UK,G,IT,EE)	C622	1-162-294-31	CERAMIC	0.001uF	10%	P,UK,G,IT,EE) 50V P,UK,G,IT,EE)
	*	A-4378-954-A	MAIN BOAR	MAIN BOARD, COMPLETE (AEP,UK,G,IT)				A-4378-954-A			TE (AEP,	,UK)
	*	A-4378-962-A	MAIN BOAR	D, COMPLE	TE (E,AU	S,PX,MX,AR)	* *	A-4390-414-A A-4378-962-A A-4390-412-A	MAIN BOAF	RD, COMPLE	TE (E,M)	(,AR)
	C202 C212	1-162-600-11 1-162-600-11		0.0047uF 0.0047uF		16V 16V	C202 C212	1-162-303-11 1-162-303-11		0.0033uF 0.0033uF		16V 16V
96	C306	1-124-902-00		0.47uF	20%	50V						
	C356 C405	1-124-902-00 1-126-935-11		0.47uF 470uF	20% 20%	50V 16V	C405	 1-126-952-11	ELECT	1000uF	20%	16V
	C707	1-162-206-31	CERAMIC	20PF	(AEI 5%	P,UK,G,IT,EE) 50V	C707	1-162-205-31	CERAMIC	18PF	5%	50V
	C708	1-162-206-31		20PF	5%	50V	C708	1-162-205-31		18PF	5%	50V
	C805 C855	1-124-925-11 1-124-925-11		2.2uF 2.2uF	20% 20%	100V 100V	C805 C855	1-126-162-11 1-126-162-11		3.3uF 3.3uF	20% 20%	50V 50V
97	C910	1-126-964-11		10uF	20%	50V	C910	1-104-665-11		100uF	20%	25V
	C915 C930	1-136-153-00 1-164-159-21	CERAMIC CERAMIC	0.01uF 0.1uF	5%	50V 50V	C915 C930	1-130-481-00 1-136-167-00		0.0068uF 0.15uF	5% 5%	50V 50V
	C931	1-162-306-11		0.01uF	30%	16V	C931	1-162-294-31		0.13ur 0.001uF	10%	50V
							C934	1-136-161-00	FILM	0.047uF	5%	50V
	C950 C965	1-126-964-11		10uF	20%	50V	C950	1-104-665-11		100uF	20%	25V
	C1013	1-136-153-00 1-126-916-11	ELECT	0.01uF 1000uF	5% 20%	50V 6.3V	C965 C1013	1-130-481-00 1-104-656-11		0.0068uF 2200uF	5% 20%	50V 6.3V
	C1021 C1832	1-162-306-11 1-136-167-00		0.01uF 0.15uF	30% 5%	16V 50V	C1832	1-136-155-00	FILM	0.015uF	5%	50V
98	D901	8-719-987-63					D901	8-719-200-82				
	D1009 D1010	8-719-200-82 8-719-200-82					D1009 D1010	8-719-987-63 8-719-987-63				
	D1012	8-719-013-63	DIODE UZ-3	0BS			D1012	8-719-011-10	DIODE UZ-	30BS-TA		
	D1023	8-719-210-21	DIODE 11EC	IS04			D1023	8-719-200-82	DIODE 11E	S2		İ

G : German model MX : Mexican model
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Page			FORM	ER			·····			NEW	·			
	Ref. No.	Part No.	Description			Rem	ark	Ref. No.	Part No.	Description		******	Ren	nark
98	IC701	8-759-375-44						IC701	8-759-398-86			(NOTE)	11011	HOLK
	JP105	1-247-895-91	CARBON	470K	5%	1/4W								
	JP105	1-249-429-11	CARBON	10K	5%	IS,PX,MX, 1/4W P,UK,G,IT								
99	Q952	8-729-141-26	TDANGISTO	D OCCORDO	A 1 1/			Q952	8-729-119-78	TDANCICTOR	0000705	UFF		
	Q954	8-729-119-78						Q954	8-729-141-26					
	R304	1-249-428-11	CARBON	8.2K	5%	1/4W	F	R304	1-249-432-11	CARBON	18K	5%	1/4W	
	R305	1-249-425-11	CARBON	4.7K	5%	1/4W	F	R305	1-249-417-11	CARBON	1K	5%	1/4W	
	R306	1-247-840-00	CARBON	2.4K	5%	1/4W		R306	1-249-420-11	CARBON	1.8K	5%	1/4W	F
	R354	1-249-428-11		8.2K	5%	1/4W	F	R354	1-249-432-11	CARBON	18K	5%	1/4W	
	R355	1-249-425-11	CARBON	4.7K	5%	1/4W	F	R355	1-249-417-11	CARBON	1K	5%	1/4W	
	R356	1-247-840-00	CARBON	2.4K	5%	1/4W		R356	1-249-420-11	CARBON	1.8K	5%	1/4W	F
	R454	1-247-863-91	CARBON	22K	5%	1/4W		R454	1-249-425-11	CARBON	4.7K	5%	1/4W	F
	R455	1-247-863-91		22K	5%	1/4W		R455	1-249-425-11	CARBON	4.7K	5%	1/4W	F
	R708	1-249-423-11	CARBON	3.3K	5%	1/4W	F	R708	1-249-429-11	CARBON	10K	5%	1/4W	
100	R740	1-247-863-91	CARBON	22K	5%	1/4W (AUS,	F PX)	R740	1-247-843-11	CARBON	3.3K	5%	1/4W (AUS	PY\
	R740	1-247-843-11	CARBON	3.3K	5%	1/4W (E,MX,	İ	R740	1-249-425-11	CARBON	4.7K	5%	1/4W (,AR) (N(	F
	R741	1-247-863-91	CARBON	22K	5%	1/4W	F	R741	1-249-429-11	CARBON	10K	5%	1/4W	·
	R741	1-249-423-11	CARBON	10K	5%	(AUS, 1/4W (E,MX,	F	R741	1-249-427-11	CARBON	6.8K	5%	S,PX) (NO 1/4W X,AR) NO	F
						(=,,,,,,	""/					(12,141	λ,λιι	,,,,
	R742	1-249-413-11		470	5%	1/4W	F				<del></del>			
	R766	1-247-807-31		100	5%	1/4W				JUMPER				
	R767	1-247-807-31		100	5%	1/4W				JUMPER				
	R768	1-247-807-31		100	5%	1/4W				JUMPER				
	R778	1-249-429-11	CARBON	10K	5%	1/4W	F							
	R804	1-249-419-11	CARBON	1.5K	5%	1/4W	F	R804	1-249-417-11	CARBON	1K	5%	1/4W	F
	R825 R827	1-247-887-00 1-249-429-11		220K 10K	5%	1/4W	- 1	D007	1 040 404 44	OADDON	0.01/	F0/	4 (4)41	_
	R854	1-249-419-11		1.5K	5% 5%	1/4W 1/4W	F ·	R827 R854	1-249-421-11 1-249-417-11		2.2K 1K	5% 5%	1/4W 1/4W	F F
101	R917	1-249-429-11	CARBON	10K	5%	1/4W		R917	1-249-431-11	CABRON	15K	5%	1/4W	
101	R930	1-249-429-11		10K	5%	1/4W		R930	1-247-863-91		22K	5%	1/4W	
	R931	1-249-429-11		10K	5%	1/4W	1	R931	1-247-863-91		22K	5%	1/4W	
	R932	1-249-425-11	CARBON	4.7K	5%	1/4W	F	R932	1-249-429-11		10K	5%	1/4W	
	R967	1-249-429-11		10K	5%	1/4W		R967	1-249-431-11		15K	5%	1/4W	
	R1835	1-247-863-91	CARBON	22K	5%	1/4W		R1835	1-249-426-11	CARBON	5.6K	5%	1/4W	
	RV301 RV351	1-238-600-11 1-238-600-11						RV301 RV351	1-238-630-11 1-238-630-11	., ., .				
102			*** MD BOA						. 200 000	*** MD BO/		• • • • • • • • • • • • • • • • • • • •		
	Q623	8-729-801-93	FRANSISTOR	2SD1387				Q623	8-729-030-18	TRANSISTOR	2SD2525			
103			*** MIC BO	ARD ***						*** MIC BO	ARD ***			
	C907	1-124-259-00	ELECT	2.2uF	20%	50V		C907	1-136-160-00	FILM	0.039uF	5%	50V	
	R906 R907	1-249-421-11 1-249-436-11		2.2K 39K	5% 5%	1/4W 1/4W	F	R906 R907	1-249-417-11 1-249-435-11		1K 33K	5% 5%	1/4W 1/4W	F
	*	A-4389-163-A	PANEL BOAI	RD, COMPLI		,UK,G,IT,I		*	A-4389-163-A A-4389-753-A					)

**NOTE:** Refer to "Note for replacement of microprocessor (IC701)" on page 6 to replace the IC701,R740 and R741.

EE

 $\begin{array}{lll} G & : German \ model & MX & : Mexican \ model \\ IT & : Italian \ model & AUS & : Australian \ model \\ \end{array}$ 

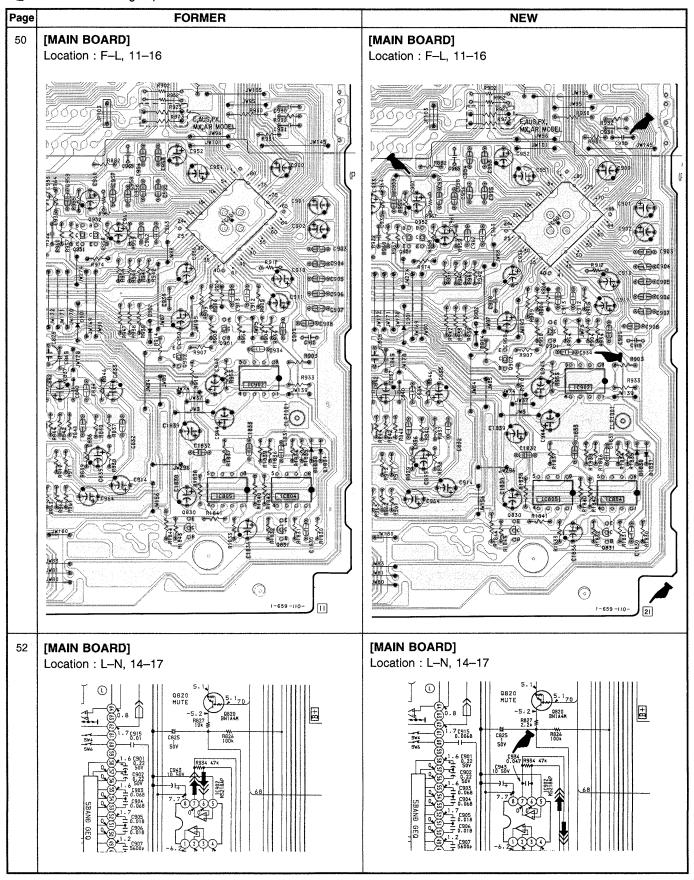
: Italian model AUS : Australian model : East European model AR : Argentine model The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety.

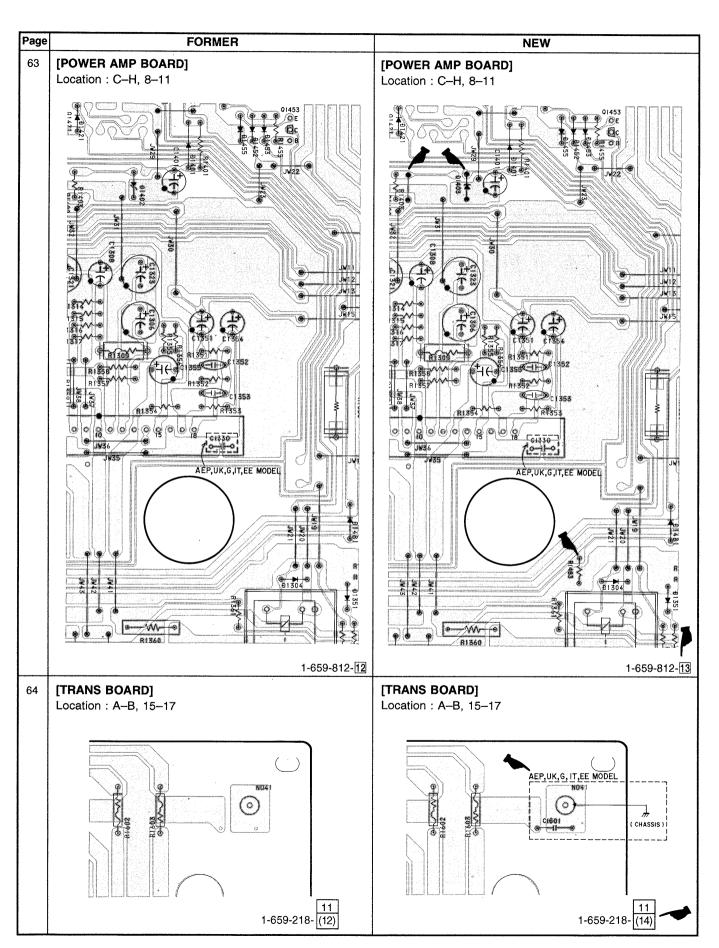
Replace only with part number specified.

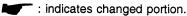
Page			FORM	ER			NEW						
	Ref. No.	Part No.	Description			<u>Remark</u>	Ref. No.	Part No.	Description			Remark	
	C501 C503	1-124-465-00 1-124-465-00		0.47uF 0.47uF	20% 20%	50V 50V	C501 C503	1-126-301-11 1-126-301-11		1uF 1uF	20% 20%	50V 50V	
103	C3046 C3211	1-126-177-11 1-124-465-00	ELECT	100uF 0.47uF	20% 20% 20%	10V 50V	C3211	1-126-301-11		1uF	20%	50V	
104	D503	8-719-987-63		1N4148M			00211		LLLOI		2070	001	
105			5,052				R3052	1-249-429-11	CARBON	10K	5%	1/4W	
106	S553	1-554-303-21	SWITCH TAC	CTILE (PTY)	(AFP IIK	G IT FF)	S553	1-554-303-11					
		, , , , , , , , , , , , , , , , , , , ,	*** POWER	, ,	`	,, , ,			*** POWEF	,		,,,,,	
	01004	1 100 007 11		_		F0\/	01004	1 100 000 11				101/	
	C1204 C1247	1-126-967-11 1-164-159-11		47uF 0.1uF	20%	50V 50V	C1204 C1247	1-126-933-11 1-162-306-11		100uF 0.01uF	20% 20%	10V 16V	
	C1297	1-164-159-11	CERAMIC	0.1uF	(Al	EP,UK,G,IT,EE) 50V	C1297	1-162-306-11	CERAMIC	0.01uF	(AEI 20%	P,UK,G,IT,EE) 16V	
		···		·····	(Al	EP,UK,G,IT,EE)					(AEI	P,UK,G,IT,EE)	
107	C1354 C1492	1-126-967-11 1-164-159-21		47uF 0.1uF	20%	50V 50V	C1354	1-126-933-11	ELECT	100uF	20%	10V	
	C1493	1-136-157-00		0.022uF	(Al 5%	EP,UK,G,IT,EE) 50V							
	01433	1-130-137-00	IILIVI	0.022ur		EP,UK,G,IT,EE)		-					
	D1251 D1402	8-719-987-63 8-719-987-63					D1261	8-719-987-63	DIODE 1N4	148M			
	Q1422	8-729-900-65	····		S		D1403 Q1422	8-719-987-63 8-729-422-57					
108	R1253	1-249-413-11	CARBON	470	5%	1/4W F	R1253	1-249-415-11	CARBON	680	5%	1/4W F	
	R1303 R1422	1-249-413-11 1-249-425-11		470 4.7K	5% 5%	1/4W F 1/4W F	R1303	1-249-415-11	CARBON	680	5%	1/4W F	
	R1443 R1444	1-249-437-11 1-249-439-11	CARBON	47K 68K	5% 5%	1/4W 1/4W	R1443 R1444	1-249-436-11 1-249-438-11		39K 56K	5% 5%	1/4W 1/4W	
109							R1483	1-249-419-11	CARBON	1.5K	5%	1/4W F	
			*** TC CON	ITROL BOAI	RD ***				*** TC CON	ITROL BOAI	RD ***		
	D630	8-719-058-03	DIODE SELS	5423E-TP15	( <b>▷</b> )(D	ECK B)	D630	8-719-032-86	DIODE SELS	5420E (▷>)	(DECK B)		
	D631 D632	8-719-058-03 8-719-058-03	DIODE SELS	5423E-TP15	(̀<\)(̀D	ECK B)	D631 D632	8-719-032-86 8-719-032-86	DIODE SELS				
	D632	8-719-058-03			, ,,	,	D633	8-719-032-86	DIODE SELS				
			*** TC SW	BOARD ***					*** TC SW	BOARD ***			
	* CN503	1-568-945-11	PIN, CONNE	CTOR 7P			CN503	1-573-734-31	PIN, CONNE	CTOR 7P			
113			*** TRANS	BOARD ***	ĸ				*** TRANS	BOARD ***	k		
							C1601	1-162-306-11	CERAMIC	0.01uF	20% (AEF	16V P,UK,G,IT,EE)	
	* CN1601	1-580-230-31	PIN, CONNE	CTOR (PC E	BOARD)	2P (AUS,MX)	CN1601	1-774-108-11	PIN, CONNE	CTOR (PC I	30ARD) 2	P (AUS,MX)	
	ΔF1603 ΔF1604							1-532-465-31 1-532-503-31	FUSE, TIME FUSE, TIME	-LAG (1.6A	250V)	.,PX,MX,AR) ,AUS,PX,AR)	
	⚠ R1601 ⚠ R1602 ⚠ R1603	1-219-139-11 1-219-136-11 1-219-136-11	FUSIBLE	0.68 0.22 0.22	5% 5% 5%	1/4W F 1/4W F 1/4W F	△ R1601 △ R1602 △ R1603	1-219-124-11 1-219-121-11 1-219-121-11		0.68 0.22 0.22	5% 5% 5%	1/4W F 1/4W F 1/4W F	

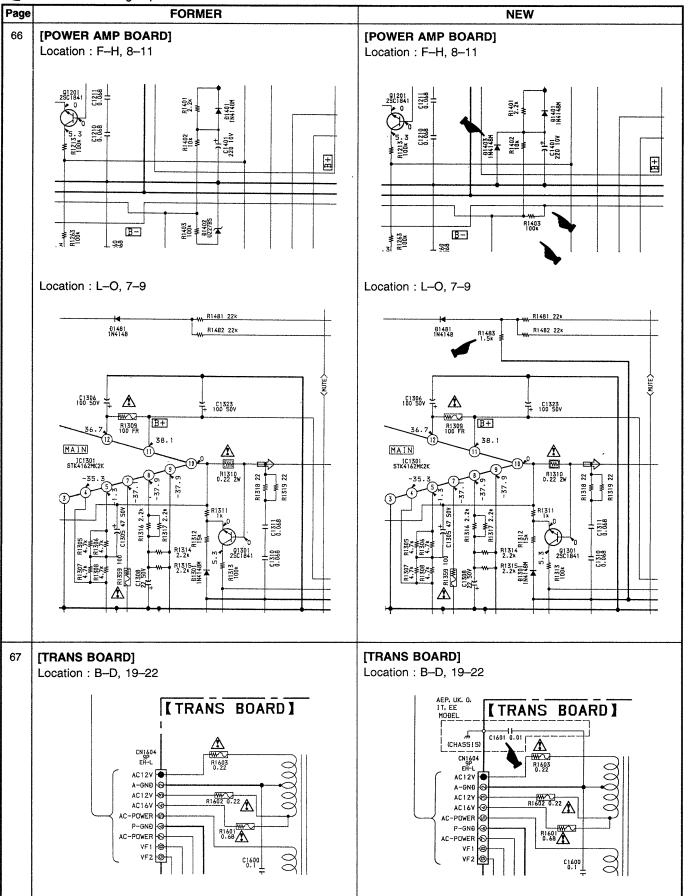
#### 4. BOARD CHANGED

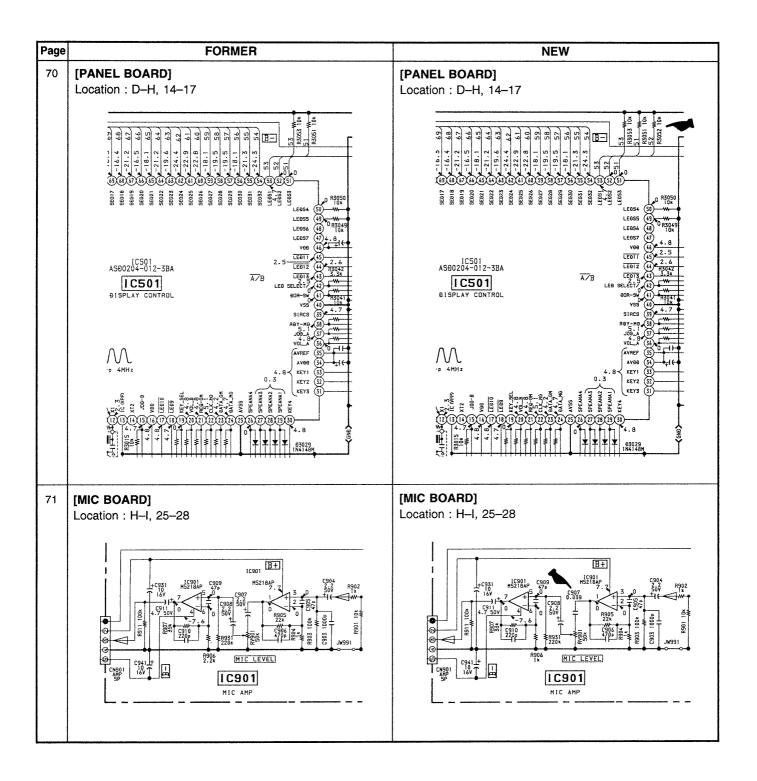
: indicates changed portion.



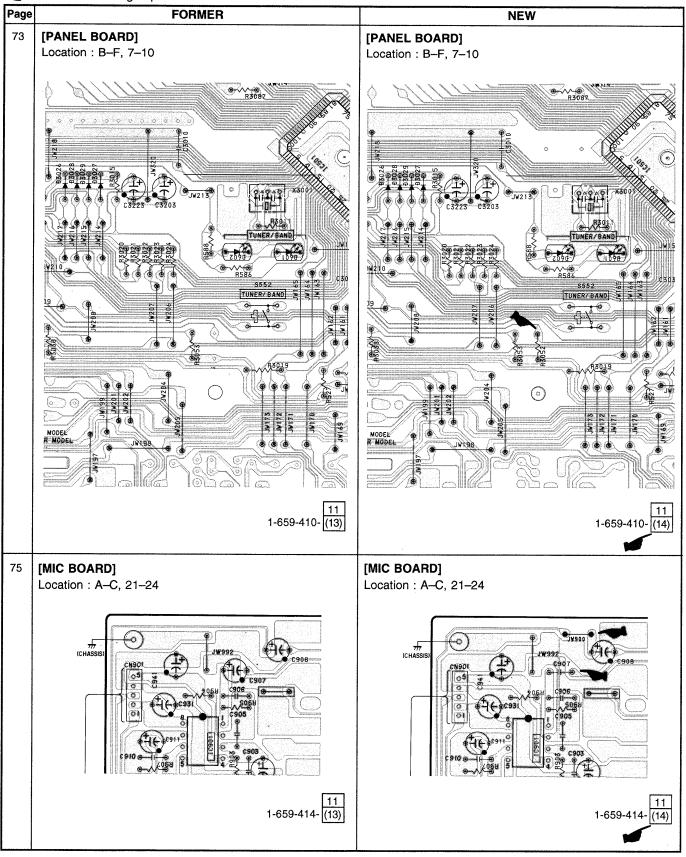








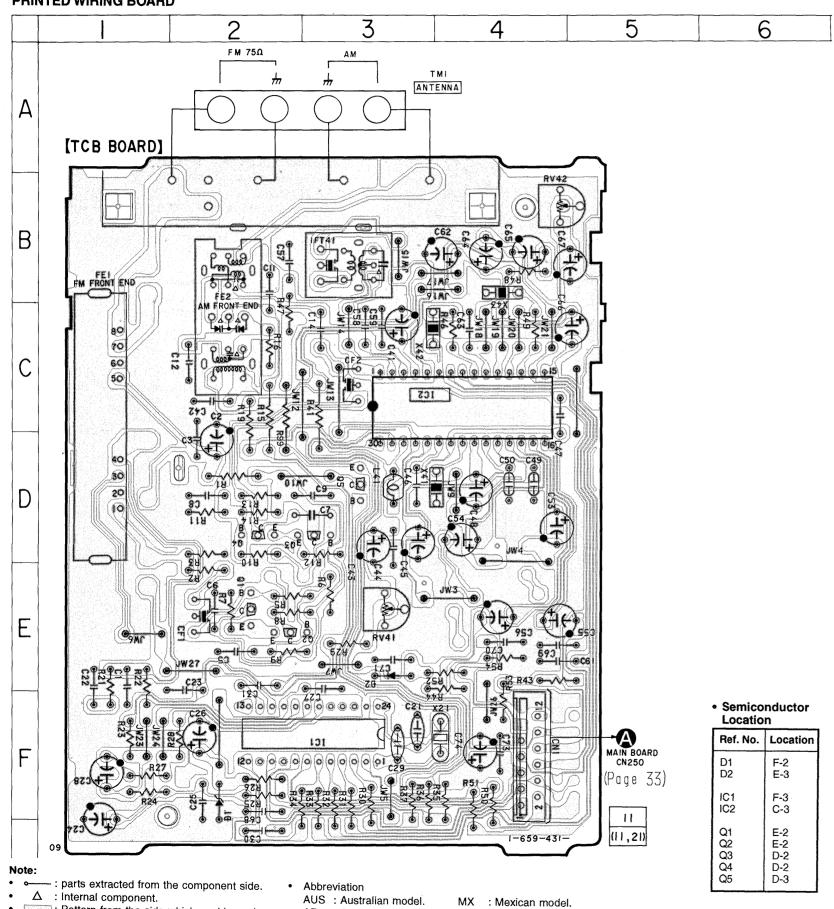
#### : indicates changed portion.



#### TCB BOARD CHANGED (E, AUS, MX, PX, AR MODEL)

• The TCB board was renewed with a change of parts, please look at this.

#### PRINTED WIRING BOARD



# SCHEMATIC DIAGRAM [TCB BOARD] FE1 FM FRONT END

10 11 | 12 | 13 | 14 • All capacitors are in  $\mu$ F unless otherwise noted.pF: $\mu\mu$ F 50WV or less are not indicated except for electrolytics and tantalums. • All resistors are in Q and 1/4W or less unless otherwise △ :internal component. • \_\_\_\_\_:panel designation. • B+ Line.
• adjustment for repair. Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions. no mark: FM ( ): AM \* :can not be measured.  $\bullet$  Voltages are taken with a VOM (Input impedance 10MQ). Voltage variations may be noted due to normal production tolerances. • Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances. •Signal path. MAIN BOARD

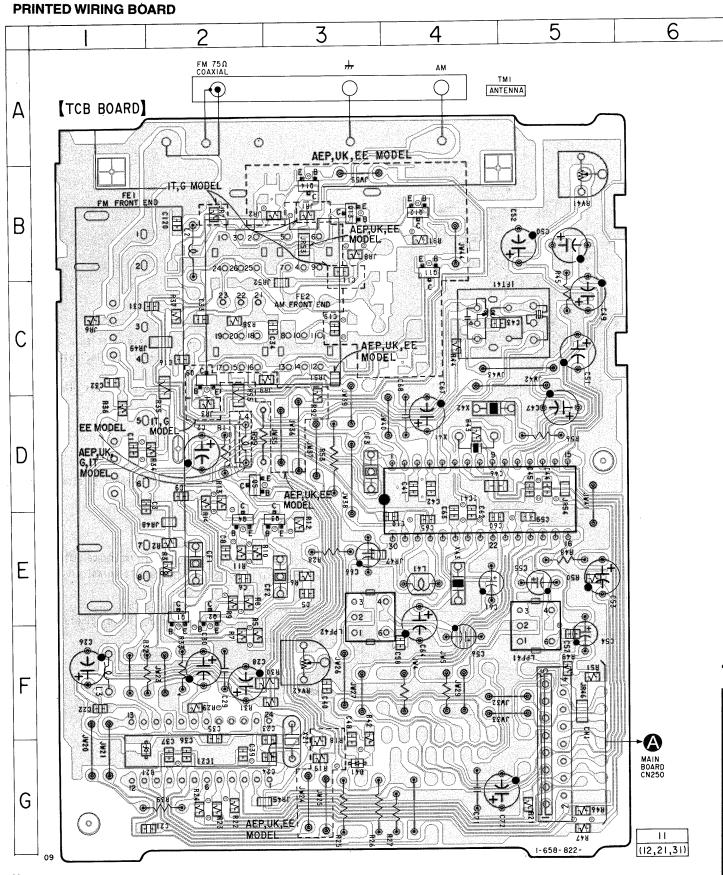
• Pattern from the side which enable seeing.

<del>--- 17 ---</del>

AR : Argentine model.

#### TCB BOARD CHANGED (AEP, UK, G, IT, EE MODEL)

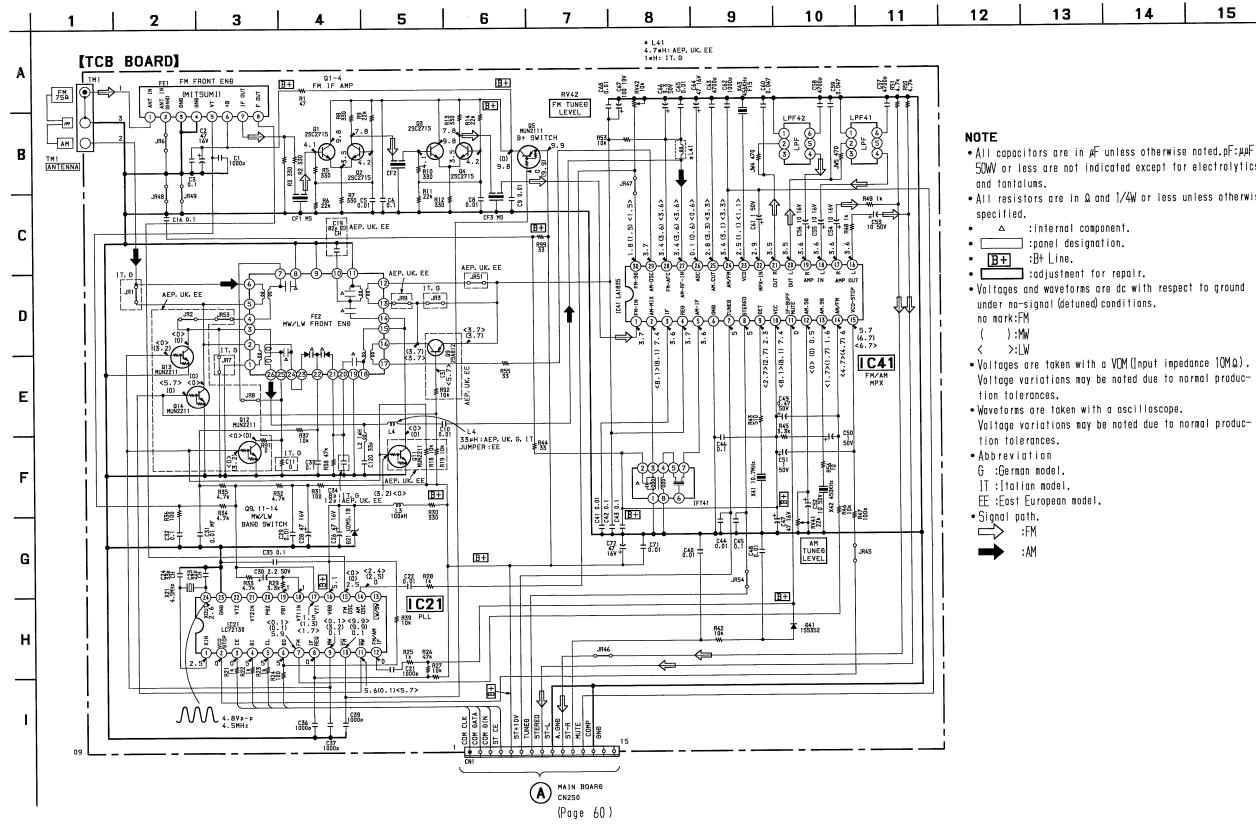
• The TCB board was renewed with a change of parts, please look at this.



#### Semiconductor Location

Ref. No.	Location
D21 D41	G-1 G-3
IC21 IC41	G-2 D-4
Q1 Q2 Q3 Q4 Q5 Q9 Q11 Q12 Q13 Q14	E-2 E-3 E-2 D-2 C-2 B-4 B-3 B-3

#### **SCHEMATIC DIAGRAM**



- All capacitors are in μF unless otherwise noted.pF:μμF 50WV or less are not indicated except for electrolytics
- All resistors are in Q and 1/4W or less unless otherwise
- △ :internal component.
- \_\_\_\_\_:panel designation.

- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance  $10M\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- G :German model.
- IT : Italian model.
- EE :East European model.
- ⇒ :FM

- • -- : parts extracted from the component side.
- Δ : Internal component.
- Pattern from the side which enable seeing.
- Abbreviation
- G: German model.
- IT : Italian model.

EE : East European model.

#### **ELECTRICAL PARTS LIST**

#### Note:

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS

  All registers are in object.

All resistors are in ohms METAL: Metal-film resistor

METAL OXIDE: Metal Oxide-film resistor

F: nonflammable

- CAPACITORS  $uF: \mu F$
- COILS uH: μH
- Abbreviation

G: German model
IT: Italian model
EE: East European model
MX: Mexican model
AUS: Australian model
AR: Argentine model

Ref. No.	Part No.	Description			Remark	<u> </u>	Ref. No.	Part No.	Description			Remark	
*	A-4303-513-A	TCB BOARD,COM	PLETE (E.AU	IS.PX.MX	(.AR)		C63	1-164-159-21	CERAMIC	0.1uF		50V	F
		******	, ·				C64	1-124-902-00		0.47uF	20%	50V	•
							C65	1-124-903-11		1.0uF	20%	50V	
		< CAPACITOR >					C66	1-124-903-11	ELECT	1.0uF	20%	50V	
C1	1-162-294-31	CERAMIC	0.001uF	10%	50V		C67	1-126-964-11	ELECT	10uF	20%	50V	
C2	1-126-967-11	ELECT	47uF	20%	16V		C68	1-162-306-11	CERAMIC	10000PF	30%	16V	
C3	1-164-159-21	CERAMIC	0.1uF		50V		C69	1-162-306-11	CERAMIC	10000PF	30%	16V	
C5	1-162-306-11	CERAMIC	10000PF	30%	16V		C70	1-162-306-11	CERAMIC	10000PF	30%	16V	
C6	1-162-306-11	CERAMIC	10000PF	30%	16V		C71	1-162-306-11	CERAMIC	10000PF	30%	16V	
C7	1-101-004-00	CERAMIC	0.01uF		50V		C73	1-162-306-11	CERAMIC	10000PF	30%	16V	
C8	1-162-306-11	CERAMIC	10000PF	30%	16V		C74	1-126-964-11	ELECT	10uF	20%	50V	
C9	1-162-306-11	CERAMIC	10000PF	30%	16V								
C11	1-164-159-21	CERAMIC	0.1uF		50V				< FILTER >				
C12	1-162-198-31	CERAMIC	8.2PF	10%	50V								
							CF1		FILTER, CERAMIC				
C14	1-162-306-11	CERAMIC	10000PF	30%	16V		CF2	1-567-389-11	FILTER, CERAMIC				
C21	1-102-959-00	CERAMIC	22PF	5%	50V								
C22	1-164-159-21	CERAMIC	0.1uF		50V				< CONNECTOR >				
C23	1-162-306-11	CERAMIC	10000PF	30%	16V								
C24	1-126-967-11	ELECT	47uF	20%	16V		* CN1	1-568-832-11	SOCKET, CONNECT	FOR 13P			
C25	1-162-306-11		10000PF	30%	16V				< DIODE >				
C26	1-126-964-11	ELECT	10uF	20%	50V								
C27	1-164-159-21	CERAMIC	0.1uF		50V		D1	8-719-933-33	DIODE UZL-6L1-T/	4			
C28	1-124-925-11	ELECT	2.2uF	20%	100V		D2	8-719-987-63	DIODE 1N4148M-1	ΓA			
C29	1-102-518-11	CERAMIC	33PF	5%	50V				< FRONT-END >				
C30	1-162-294-31	CERAMIC	0.0Ò1uF	10%	50V				CITIONI-LIND >				
C31	1-162-306-11		10000PF	30%	16V		FE1	1-233-533-11	ENCAPSULATED C	OMPONENT			
C41	1-126-933-11		100uF	20%	10V		FE2	1-239-260-11	ENCAPSULATED C				
C42	1-162-306-11		10000PF	30%	16V			. 200 200 11	Ellorii oolirii eb	01111 0111111			
C43	1-126-962-11		3.3uF	20%	50V				< IC >				
C44	1-162-306-11	CERAMIC	10000PF	30%	16V		IC1	8-759-288-54	IC I C72130				
C45	1-124-589-11	ELECT	47uF	20%	16V		IC2	8-759-176-03					
C46	1-162-600-11		4700PF	30%	16V			0.0000					
C47	1-162-294-31		0.001uF	10%	50V				< IFT >				
C48	1-126-160-11	ELECT	1uF	20%	50V								
C49	1-136-159-00	METALIZED FILM	0.033uF	5%	50V		IFT41	1-409-636-11	TRANSFORMER, IF	- (CERAMIC	HILTER)	)	
C50		METALIZED FILM		5%	50V				< COIL >				
C53		ELECT		20%	50V				, , , , , , , , , , , , , , , , , , , ,				
C54	1-126-157-11		10uF	20%	16V		L41	1-410-119-11	MICRO INDUCTOR	(EL TYPE)			
C55	1-126-964-11		10uF	20%	50V					( / / / /			
									< TRANSISTOR >				
C56	1-126-964-11		10uF	20%	50V	_	04	0.700.000.00	TRANSICTOR CO.				
C57	1-164-159-21		0.1uF	000/	50V	F	Q1		TRANSISTOR 2SC				
C58	1-162-306-11	CERAMIC	10000PF	30%	16V	_	Q2		TRANSISTOR 2SC				
C59		CERAMIC	0.1uF		50V	F	Q3		TRANSISTOR 2SC				
C61	1-164-159-21	CERAMIC	0.1uF		50V	F	Q4 Q5		TRANSISTOR 2SC2 TRANSISTOR BN1/		4		
C62	1-126-967-11	ELECT	47uF	20%	16V								

# ТСВ

Ref. No.	Part No.	Description < RESISTOR >			Remark		Ref. No.	Part No.	<u>Description</u> < TERMINAL >			Remark
		< neoioton >							< I EMININAL >			
R1	1-249-401-11	CARBON	47	5%	1/4W	F	TM1	1-537-238-21	TERMINAL BOARD	) (ANTENNA	)	
R2	1-249-411-11	CARBON	330	5%	1/4W					•		
R3	1-249-411-11	CARBON	330	5%	1/4W				< VIBRATOR >			
R5	1-249-411-11		330	5%	1/4W							
R6	1-247-863-91	CARBON	22K	5%	1/4W		X21	1-760-549-11	VIBRATOR, CRYS	ΓAL (4.5MHz	)	
							X41	1-577-075-11	OSCILLATOR, CEP	RAMIC (456K	Hz)	
R7	1-249-411-11		330	5%	1/4W		X42		FILTER, CERAMIC			
R8	1-249-411-11	CARBON	330	5%	1/4W		X43	1-527-981-00	FILTER, CERAMIC	(450KHz)		
R9	1-247-863-91		22K	5%	1/4W							
R10	1-249-411-11		330	5%	1/4W		*******	**********	*******	******	****	*****
R11	1-247-863-91	CARBON	22K	5%	1/4W							
							*	A-4303-502-A	TCB BOARD, COM	PLETE (AEP,	UK)	
R12	1-249-411-11	CARBON	330	5%	1/4W				**********	*******	****	
R13	1-249-411-11	CARBON	330	5%	1/4W							
R14	1-247-863-91	CARBON	22K	5%	1/4W		*	A-4303-503-A	TCB BOARD, COM	PLETE (G,IT	)	
R15	1-249-429-11	CARBON	10K	5%	1/4W				******	******	**	
R16	1-249-437-11	CARBON	47K	5%	1/4W							
							*	A-4303-504-A	TCB BOARD, COM			
R19	1-249-399-11	CARBON	33	5%	1/4W	F			******	******		
R21	1-247-807-31	CARBON	100	5%	1/4W							
R22	1-249-425-11	CARBON	4.7K	5%	1/4W				< CAPACITOR >			
R23	1-249-425-11	CARBON	4.7K	5%	1/4W	F						
R24	1-249-425-11	CARBON	4.7K	5%	1/4W	F	C1	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
							C2	1-126-967-11	ELECT	47uF	20%	16V
R25	1-247-807-31	CARBON	100	5%	1/4W		C3	1-163-038-91		CHIP	0.1uF	
R26	1-249-411-11	CARBON	330	5%	1/4W		C5	1-163-031-11	CERAMIC CHIP	0,01uF		50V
R27	1-249-425-11	CARBON	4.7K	5%	1/4W		C6	1-163-038-91	CERAMIC CHIP	0.1uF		25V
R28	1-249-423-11		3.3K	5%	1/4W	F						
R29	1-249-417-11	CARBON	1K	5%	1/4W	F	C7	1-101-004-00		0.01uF		50V (EE)
							C8	1-163-031-11	CERAMIC CHIP	0.01uF		50V
R30	1-249-417-11	CARBON	1K	5%	1/4W		C9	1-163-031-11	CERAMIC CHIP	0.01uF		50V
R31	1-249-417-11	CARBON	1K	5%	1/4W		C10	1-163-031-11	CERAMIC CHIP	0.01uF		50V
R32	1-249-417-11		1K	5%	1/4W	۲	C11	1-216-295-91	CONDUCTOR, CHI	P (2012)(G,I	T)	
R33	1-247-807-31	CARBON	100	5%	1/4W							
R34	1-249-429-11	CARBON	10K	5%	1/4W		C16	1-163-038-91 (		0.1uF	<b>5</b> 0/	25V
DOF	1 040 400 44	0.4.00.011	1014	==/			C19	1-163-249-11	CERAMIC CHIP	82PF	5%	50V
R35	1-249-429-11	CARBON	10K	5%	1/4W		004	4 400 444 00	0504440 01110	0.004 5	<b>5</b> 0/	(AEP,UK,EE)
R36	1-249-437-11	CARBON	47K	5%	1/4W	_	C21	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
R37	1-249-417-11		1K	5%	1/4W	r	C22	1-163-031-11	CERAMIC CHIP	0.01uF	<b>-</b> 0/	50V
R41 R43	1-249-429-11 1-249-423-11	CARBON	10K	5%	1/4W		C23	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
กษอ	1-249-420-11	CANDUN	3.3K	5%	1/4W		004	1 100 000 11	OEDAMIO OLUD	2205	E0/	501/
D44	1 040 400 11	CADDON	2.21	F0/	4 / 4141		C24		CERAMIC CHIP	33PF	5%	50V
R44	1-249-423-11		3.3K	5% 5%	1/4W		C26	1-126-967-11		47uF	20%	16V
R46 R47	1-249-442-11 1-249-399-11		510	5%	1/4W	_	C28	1-126-967-11		47uF	20%	16V
			33	5%	1/4W		C29	1-162-306-11		0.01uF	30%	16V
R48 R49	1-249-423-11 1-249-393-11		3.3K	5%	1/4W	F	C30	1-124-925-11	ELECT	2.2uF	20%	100V
N49	1-249-393-11	CANDUN	10	5%	1/4W	Г	024	1 100 001 11	OLD VIVIO OTTID	0.040		E0V
R50	1-249-429-11	CADDON	10K	5%	1/4W		C31	1-163-031-11	CERAMIC CHIP	0.01uF		50V
R51	1-249-441-11						C32	1-163-038-91	CERAMIC CHIP	0.1uF		25V
R52	1-249-441-11		100K 10K	5% 5%	1/4W 1/4W		C33 C34	1-163-038-91 1-163-091-00	CERAMIC CHIP CERAMIC CHIP	0.1uF 8PF		25V 50V
R53	1-249-425-11		4.7K	5% 5%	1/4W	E	034	1-100-091-00	OLDAIVIIO UDIP	OFF		(G,IT)
R54	1-249-425-11		4.7K 4.7K	5% 5%	1/4W		C34	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
1134	1-243-423-11	UAINDUN	71.1 K	J /0	1/4VV	ı	034	1-100-229-11	GENAIVIIG GHIP	1455	J /0	
R99	1-249-399-11	CARRON	33	5%	1/4W	F						(AEP,UK,EE)
1133	1-240-000-11	UNIOUN	00	J /0	1/4 VV	1	C35	1-163-038-91	CERAMIC CHIP	0.1uF		25V
		< VARIABLE RESI	STOR >				C36	1-163-141-00		0.1uF 0.001uF	5%	50V
		Z AVLIIVDEE UEOL	010112				C37		CERAMIC CHIP	0.001uF	5% 5%	50V 50V
RV41	1-238-600-11	RES, ADJ, CARBO	N 10K				C39		CERAMIC CHIP	0.001uF 0.001uF	5% 5%	50V 50V
RV42		RES, ADJ, CARBO					C40		CERAMIC CHIP	0.001ul 0.01uF	J /0	50V
*** 74	. 200 001 11	, 100, OAI 100	to to 1 \				5-10	7 100 001 11	CELUMNIO OF III	0.0 Tul		00 V

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			<u>Remark</u>
C41	1-163-031-11	CERAMIC CHIP	0.01uF		50V			< FRONT-END >			
C42 C43	1-163-038-91 1-163-038-91	CERAMIC CHIP CERAMIC CHIP	0.1uF 0.1uF		25V 25V	EE1	1 102 205 11	EDONT END /2 C	ANC\/EE\		
C44	1-163-031-11	CERAMIC CHIP	0.1uF		50V	FE1	1-193-385-11 1-233-542-11	FRONT END (3 G FRONT END (4 G		G IT	
C45	1-163-038-91	CERAMIC CHIP	0.01uF		25V	FE2	1-233-514-11	ENCAPSULATED			
			vu.			FE2	1-239-260-11	ENCAPSULATED			
C46	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V					(,	,
C47	1-126-967-11		47uF	20%	16V			< IC >			
C48	1-163-031-11		0.01uF		50V						
C49	1-124-902-00		0.47uF	20%	50V	IC21					
C50	1-124-903-11	ELECI	1.0uF	20%	50V	IC41	8-759-176-03	IC LA1835			
C51	1-124-903-11	ELECT	1.0uF	20%	50V			< IFT >			
C52	1-126-964-11	ELECT	10uF	20%	50V						
C53	1-126-964-11		10uF	20%	50V	IFT41	1-409-636-11	TRANSFORMER,	IF (CERAMIC	FILTE	ER)
C54	1-126-157-11		10uF	20%	16V						
C55	1-126-157-11	ELECT	10uF	20%	16V			< JUMPER RESIS	TOR >		
C56	1-126-157-11	ELECT	10uF	20%	16V	JR1	1-216-295-11	METAL CHIP	0	5%	1/10W
C57	1-163-017-00		0.0047uF	5%	50V	""	1 210 200 11	WEINE OIII	U	J /0	(G,IT)
C58	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	JR2	1-216-295-11	METAL CHIP	0	5%	1/10W
C59	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V						(AEP,UK,EE)
					EP,UK,G,IT)	JR3	1-216-295-11	METAL CHIP	0	5%	1/10W
C59	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V (EE)	ina	4 040 005 44	AACTAL OLUD	•	<b>50</b> /	(G,IT)
C60	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V	JR6	1-216-295-11	METAL CHIP	0	5%	1/10W (AEP,UK,G,IT)
000	1 100 003 11	OLIMANIO OI III	0.047 01		EP,UK,G,IT)	JR7	1-216-295-11	METAL CHIP	0	5%	1/10W
C60	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V (EE)				•	0,10	(G,IT)
C61	1-126-301-11		1uF	20%	50V						( , ,
C62	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	JR8	1-216-295-11	METAL CHI	0	5%	1/10W
C63	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V	IDO	1 010 005 11	METAL OLUD	0	F0/	(AEP,UK,EE)
C64	1-126-967-11	ELECT	47uF	20%	16V	JR9	1-216-295-11	METAL CHIP	0	5%	1/10W (AEP,UK,EE)
C65	1-163-031-11		0.01uF	2070	50V	JR45	1-216-295-11	METAL CHIP	0	5%	1/10W
C66	1-126-162-11		3.3uF	20%	50V	JR46	1-216-296-11	METAL CHIP	Ö	5%	1/8W
C67	1-126-933-11		100uF	20%	10V	JR47	1-216-295-11	METAL CHIP	0	5%	1/10W
C68	1-162-306-11	CERAMIC	0.01uF	30%	16V						
C71	1-162-306-11	CERAMIC	0.01	200/	461/	JR48	1-216-295-11	METAL CHI	0	5%	1/10W
C72	1-102-300-11	ELECT	0.01uF 47uF	30% 20%	16V 16V	JR49 JR51	1-216-296-11 1-216-295-11	METAL CHIP METAL CHI	0 0	5% 5%	1/8W 1/10W
C120		CERAMIC CHIP	33PF	5%	50V	01101	1 210 255 11	WEIAL OIL	U	J 70	(AEP,UK,EE)
					EP,UK,G,IT)	JR52	1-216-295-11	METAL CHIP	0	5%	1/10W
				•	•	JR53	1-216-296-11	METAL CHIP	0	5%	1/8W
		< FILTER >									(AEP,UK,EE)
CF1	1-567-200-11	FILTER, CERAMIC	/EE\			JR54	1 216 205 11	METAL CHID	0	E0/	1/10\\
CF1		FILTER, CERAMIC		T)		JN04	1-216-295-11	WEIAL UNIP	U	5%	1/10W
CF2		FILTER, CERAMIC						< JUMPER RESIS	TOR >		
CF3		FILTER, CERAMIC		- /							
CF3	1-760-393-11	FILTER, CERAMIC	(AEP,UK,G,I	Τ)		JW4	1-249-413-11	CARBON	470	5%	1/4W
		OOMMEGTOD				154/5	4 040 440 44	OADDON	470		(AEP,UK,G,IT)
		< CONNECTOR >				JW5	1-249-413-11	CARBON	470	5%	1/4W
* CN1	1-568-834-11	SOCKET, CONNEC	TOR 15P								(AEP,UK,G,IT)
J		230.12., 00111420	. 5., .01					< COIL >			
		< DIODE >									
201	0.740.070.00	310DE 1107 77 /7	- 40			L2	1-414-142-11	MICRO INDUCTO	, ,	IK,G,I	T)
D21		DIODE UDZ-TE-17-5				L3		MICRO INDUCTO		``	
D41	0-/18-010-/41	DIODE 1SS352-TPH	ıo			L4 L41	1-410-515-11 1-407-500-00	INDUCTOR 33uH MICRO INDUCTO			-F)
						L41	1-410-119-11	MICRO INDUCTO	•		,
									( · · · <del>-</del> )		V - * * * *

#### **HCD-N455**

#### TCB

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
		< FILTER >				R39	1-249-429-11	•	10K	5%	1/4W
		< FILIEN >				R42	1-216-073-00		10K 10K	5%	1/4VV 1/10W
LPF41	1_230_8/5_11	FILTER, LOW PAS	20			N42	1-210-073-00	WIETAL UTIF	IUN	J /0	171000
LPF42		FILTER, LOW PAS				R43	1-216-042-00	METAL CHIP	510	5%	1/10W
LF1 42	1-203-040-11	TILILIN, LOW FA	55			R44	1-216-021-00		68	5%	1/10W
		< TRANSISTOR >				R45	1-249-423-11		3.3K	5%	1/10 <b>VV</b>
		< INAMOISIUM >	•			I	1-216-073-00		10K	5%	1/40V 1 1/10W
01	0 700 001 07	TDANICICTOD OC	0074EV TE0	=1		R46			10K		1/10W
Q1		TRANSISTOR 2S				R47	1-216-097-11	METAL CHIP	TOOK	5%	1/10W
Q2	8-729-201-27					Dan	1 040 447 44	OADDON	41/	E0/	4/4NA1 F
Q3		TRANSISTOR 2S				R48	1-249-417-11		1K	5%	1/4W F
Q4		TRANSISTOR 2S		oL.		R49	1-216-049-11		1.0K	5%	1/10W
Q5	8-729-424-08	TRANSISTOR UN	2111			R50	1-216-065-00		4.7K	5%	1/10W
						R51	1-216-065-00		4.7K	5%	1/10W
Q9		TRANSISTOR 2S			K,EE)	R53	1-249-429-11	CARBON	10K	5%	1/4W
Q11		TRANSISTOR UN									
Q12		TRANSISTOR UN				R55	1-216-162-00		33	5%	1/8W
Q13		TRANSISTOR UN				R56	1-249-393-11		10	5%	1/4W F
Q14	8-729-421-22	TRANSISTOR UN	2211 (AEP,U	K,EE)		R91	1-216-295-11	METAL CHIP	0	5%	1/10W
											(AEP,UK,EE)
		< RESISTOR >				R92	1-216-073-00	METAL CHIP	10K	5%	1/10W
											(AEP,UK,EE)
R1	1-249-401-11	CARBON	47	5%	1/4W F	R99	1-249-399-11	CARBON	33	5%	1/4W F
R2	1-216-037-00	METAL CHIP	330	5%	1/10W						
R3	1-216-037-00	METAL CHIP	330	5%	1/10W			< VARIABLE RES	SISTOR >		
R5	1-216-037-00	METAL CHIP	330	5%	1/10W	1		· · · · · · · · · · · · · · · · · · ·	0.0.0		
R6	1-216-081-00	METAL CHIP	22K	5%	1/10W	RV41	1-238-601-11	RES, ADJ, CARE	RON 22K		
110	1 210 001 00	WIE IT LE OT III	2211	370	1, 1011	RV42		RES, ADJ, CARE			
R7	1-216-037-00	METAL CHIP	330	5%	1/10W	11042	1 200 000 11	TIEO, ADO, OATE	JOIN TOIL		
R8	1-216-037-00	METAL CHIP	330	5%	1/10W	1		< TERMINAL >			
R9	1-216-081-00	METAL CHIP	22K	5%	1/10W			\ TETWINGTE >			
R10	1-216-037-00	METAL CHIP	330	5%	1/10W	TM1	1_537_/88_11	TERMINAL BOA	RD (ANT) (A	NITENNIZ	1)
R11	1-216-037-00	METAL CHIP	22K	5%	1/10W	''''	1-337-400-11	ILININAL DOA	ווט (אוזי) (א	INILININA	<b>'</b> )
nii	1-210-001-00	METAL UTIL	22N	3 /0	1/1000			< VIBRATOR >			
R12	1-216-037-00	METAL CHIP	330	E0/	1/10W			< VIDITATION >			
				5%		V01	1 760 540 11	VIDDATOD CDV	CTAL /A EMI	<b>∐</b> -1	
R13	1-216-037-00		330 22K	5% 5%	1/10W	X21		VIBRATOR, CRY FILTER, CERAM			
R14	1-216-081-00	METAL CHIP			1/10W	X41		•	`	)	
R18	1-216-073-00	METAL CHIP	10K	5%	1/10W	X42		FILTER, CERAM	,	CIZI I=\	
540	4 040 070 00	METAL OLUB	401/	<b>F</b> 0/	(AEP,UK,EE)	X43	1-5//-0/5-11	OSCILLATOR, C	ENAIVIIC (43	οκπΖ)	
R19	1-216-073-00	METAL CHIP	10K	5%	1/10W						to also also also also also also also als
					(AEP,UK,EE)	******	*****	*********	*****	****	*****
B0.	4.040.015.11	AAFTA! OLUM	4.007		44000						
R21	1-216-049-11	METAL CHIP	1.0K	5%	1/10W						
R22	1-216-049-11	METAL CHIP	1.0K	5%	1/10W	1					
R23	1-216-049-11		1.0K	5%	1/10W						
R24	1-216-025-11		100	5%	1/10W						
R25	1-249-417-11	CARBON	1K	5%	1/4W F						
						1					
R26	1-249-437-11		47K	5%	1/4W	1					
R27	1-249-429-11		10K	5%	1/4W	1					
R28	1-249-417-11		1K	5%	1/4W F	1					
R29	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	ł					
R30	1-216-186-00	METAL CHIP	330	5%	1/8W						
						1					
R31	1-216-025-11	METAL CHIP	100	5%	1/10W						
R32	1-249-425-11	CARBON	4.7K	5%	1/4W F						
R33	1-249-425-11	CARBON	4.7K	5%	1/4W F	1					
R34	1-216-065-00	METAL CHIP	4.7K	5%	1/10W						
R35	1-216-214-00		4.7K	5%	1/8W	}					
						1					
R36	1-216-025-11	METAL CHIP	100	5%	1/10W						
R37	1-216-073-00	METAL CHIP	10K	5%	1/10W						
R38	1-216-089-11		47K	5%	1/10W						
		•		- / 0	.,	I					

# SS-LB455

# **SERVICE MANUAL**



AEP Model UK Model E Model Australian Model PX Model

This set is the speaker system in LBT-N455.

Photo: L-ch

#### **SPECIFICATIONS**

Speaker system 3-way speaker system Speaker units

Super Woofer: 17 cm dia., cone type Woofer: 17 cm dia., cone type Tweeter: 6 cm dia., cone type Super tweeter: 2 cm dia., dome type Nominal impedance

6 ohms

Dimensions

Approx.  $240 \times 500 \times 370$  mm  $(9^{1}/2 \times 19^{3}/4 \times 14^{5}/8 \text{ inches})$  (w/h/d)

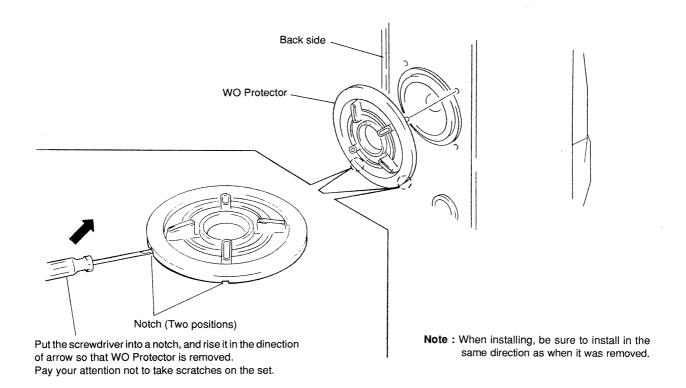
Mass Appro

Approx. 9 kg (19 lb 13 oz.)

Design and specifications are subject to change without notice.



#### NOTE FOR REMOVING WO PROTECTOR

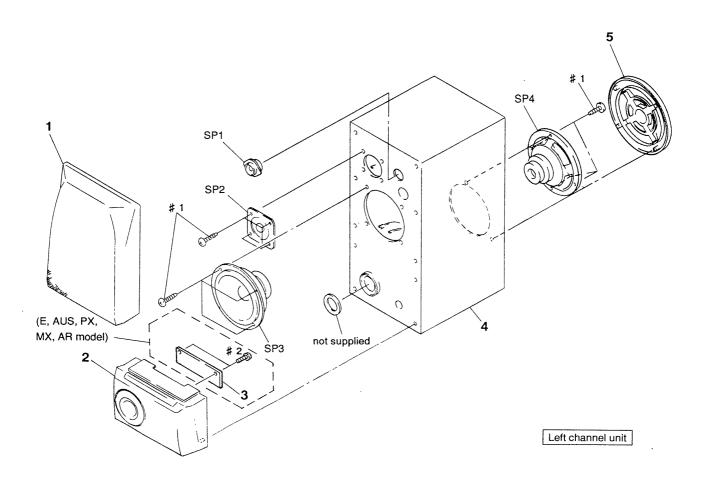


#### **EXPLODED VIEWS**

#### NOTE:

- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Abbreviation

G : German model
IT : Italian model
EE : East European model
MX : Mexican model
AUS : Australian model
AR : Argentine model



Ref. No.	Part No. <u>Description</u>		Remark	
1 2 2 2 2	X-4946-690-1 FRAME ASSY, GRILLE X-4946-691-1 PANEL (L) ASSY, DUCT (E X-4946-692-1 PANEL (R) ASSY, DUCT (E X-4947-164-1 PANEL (L) ASSY, DUCT (A X-4947-165-1 PANEL (R) ASSY, DUCT (A	, AUS, PX, MX, EP, UK, G, IT,	AR) EE)	
* 3	1-589-834-11 MOUNT BOARD (E. AUS. PX. M	X. AR)		1
* 4	A-4361-894-A CABINET (L) ASSY, SPEAK			
* 4	(including SP TERMINAL BOARD A-4361-895-A CABINET (R) ASSY, SPEAK (including SP TERMINAL BOARD	ER	, ,	
* 4	A-4384-053-A CABINET (L) ASSY, SPEAK	ER		
* 4	(including SP TERMINAL BOA A-4384-054-A CABINET (R) ASSY, SPEAK (including SP TERMINAL BOA	ER	, , ,	1
* 4	A-4384-104-A CABINET (L) ASSY, SPEAK (including SP T		BD) (C)	
* 4	A-4384-105-A CABINET (R) ASSY, SPEAK (including SP T	ER	, , ,	
5 SP1	4-981-069-01 WO PROTECTOR 1-504-639-11 SPEAKER (2CM) (SUPER TWE		λυ <i>)</i> (θ)	

Ref. No.	Part No.	Description	Remark
SP2	1-504-872-11	SPEAKER (6CM) (TWEETER)	
SP3 SP4		SPEAKER (17CM) (WOOFER) SPEAKER (17CM) (SUPER WOOFER)	
******	******	*************	******
		S & PACKING MATERIALS ********	
*		CORD, SPEAKER (RED/BLACK 2.5m) CORD, SPEAKER (BLUE/BLACK 2.5m) CUSHION	
******	******	***********	*****
	H.	*************** ARDWARE LIST **************	
#1 #2		SCREW +P 4X14 TYPE4 SCREW +BTP 2.6X12 TYPE2 (E, AUS, PX,	MX, AR)